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(54) Title: HERBICIDAL BENZENE COMPOUNDS

(57) Abstract

Herbicidal compositions and method of use involving effective amounts of substituted benzene compounds to control the growth of undesired vegetation.

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TITLE HERBICIDAL BENZENE COMPOUNDS.

BACKGROUND OF THE INVENTION

This invention relates to agriculturally suitable compositions of certain herbicidal benzene compounds and a method for their use as selective preemergent or postemergent herbicides for controlling the growth of undesired vegetation in crops such as rice.

New compounds effective for controlling the growth of undesired vegetation are in constant demand. In the most common situation, such compounds are sought to selectively control the growth of weeds in useful crops such as cotton, rice, corn, wheat and soybeans, to name a few. Unchecked weed growth in such crops can cause significant losses, reducing profit to the farmer and increasing costs to the consumer. In other situations, herbicides are desired which will control all plant growth. There are many products commercially available for these purposes, but the search continues for products which are more effective, less costly and environmentally safe.

SUMMARY OF THE INVENTION

This invention comprises agriculturally suitable

compositions wherein the active compounds are the
compounds of Formulas I and II, and their method-of-use
as preemergent and/or postemergent herbicides or plant
growth regulants. Accordingly, the compositions of the
invention comprise compounds of the formula

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$$R^3$$
 R^2
 R^3
 R^3
 R^3
 R^3
 R^3
 R^3
 R^3
 R^3
 R^3
 R^3

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wherein

R¹ is Cl, Br, I, OCH₃, OCHF₂, OCF₃ or NO₂;

R² is CN, CO₂R⁴, CHO, C(X)NR¹⁷R¹⁸, C(S)OR⁶, C≡CH,

CHR¹⁹OR²⁰, CH=NOR⁷, CH=CR²¹R²², C(halogen)=NOR⁷,

C(NH₂)=NOR⁷, C(CN)=NOR⁷, CHR¹⁹(halogen),

CHR¹⁹CN, CHR¹⁹C(=O)NH₂, CHR¹⁹CO₂H, or a five
membered heterocyclic ring containing one or

more nitrogen, sulfur, or oxygen atoms and

optionally substituted with one or more CH₃,

CF₃, OCH₃, SCH₃, or halogen;

R³ is n-propyl; C₄-C₁₀ alkyl; n-propyl or C₄-C₇ alkyl each substituted with one or more halogen, OR⁸, SR⁹ or NR¹⁰R¹¹; C₁-C₂ alkyl substituted with OR¹⁶, SR⁹, NR¹⁴R¹⁵, CO₂(C₁-C₂ alkyl) or phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; C₃-C₆ cycloalkyl; CH₂(C₃-C₆ cycloalkyl); phenyl, pyridyl, thienyl, furyl, pyrazolyl or thiazolyl, each optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; C₂-C₆ alkenyl optionally substituted with one or more halogen or CO₂(C₁-C₂ alkyl); OR¹²; SR¹³; NR¹⁴R¹⁵;

$$(H, C_1-C_2 \text{ alkyl}) \quad (H, C_1-C_2 \text{ alkyl})$$

$$OCH_2C \longrightarrow CH_2 \quad CH_2 \quad CH_2$$

$$C (=X) R^{12}; \quad Or$$

O-N=CR³⁰R³¹;

 R^4 is H, C_1-C_2 alkyl,

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- R^6 , R^7 , R^8 , R^9 , R^{10} and R^{11} are independently H or C_1-C_2 alkyl;
- R¹² and R¹³ are independently C₁-C₁₀ alkyl optionally substituted with one or more halogen, OR⁸, SR⁹, CO₂R²³, C(O)NR²⁴R²⁵, CN, Si(CH₃)₃, C(R²⁶) (OR²⁷) (OR²⁸) or NR¹⁰R¹¹; C₁-C₃ alkyl substituted with a five- or six-membered heterocyclic ring containing 1-2 heteroatoms selected from the group 1-2 nitrogens, 1 oxygen and 1 sulfur, each ring optionally substituted with 1-2 substituents selected from F, Cl, Br, CH₃, CF₃, OCH₃ and CN; C₃-C₆ alkenyl; or phenyl or benzyl, each ring optionally substituted with one or more CH₃, CF₃, OCH₃, OR²⁹, SCH₃ or halogen;
 - R¹⁴ and R¹⁵ are independently H or C₁-C₂ alkyl, or may be taken together along with the nitrogen to which they are attached to form a pyrrolyl, piperidinyl, morpholinyl, pyrazolyl, or imidazolyl ring, each optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃, or halogen;
 - R¹⁶ is H, C₁-C₈ alkyl; benzyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; or phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen;
 - R^{17} is H, C_1-C_2 alkyl or phenyl optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 or halogen;
 - R¹⁸ is H, C₁-C₂ alkyl, C₃-C₆ cycloalkyl, $CH_2(C_3-C_6 \text{ cycloalkyl})$, $O(C_1-C_4 \text{ alkyl})$, O-allyl or may be taken together with R¹⁷ as $-(CH_2)_4-$, $-(CH_2)_5-$ or $-(CH_2CH_2OCH_2CH_2)-$;
- 35 R^{19} is H or C_1-C_2 alkyl;

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 \mathbb{R}^{20} is H or $\mathbb{C}(0)$ $\mathbb{C}\mathbb{H}_3$;

- ${\bf R}^{21}$ and ${\bf R}^{22}$ are independently H, CN, ${\bf CO_2R^4}$, ${\bf C(X)\,NR^{17}R^{18}}$ or halogen;
- R^{23} , R^{24} , R^{25} and R^{26} are independently H; C_1 - C_3 alkyl; or phenyl optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 , or halogen;
- R^{27} and R^{28} are independently C_1-C_3 alkyl or may be taken together as $-(CH_2)_2-$ or $-(CH_2)_3-$ optionally substituted with 1-2 CH_3 's;
- 10 X is O or S;
 - R²⁹ is phenyl, pyridyl, thiazolyl, pyrazolyl or pyrrolyl each optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃, or halogen; and
 - R^{30} and R^{31} are each independently H; C_1-C_{10} alkyl; or phenyl optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 , or halogen; and agriculturally suitable salts thereof.

In the above definitions, the term "alkyl" includes straight chain or branched alkyl, e.g., methyl, ethyl, n-propyl, isopropyl or the different butyl isomers, etc. Cycloalkyl includes cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl. The term "halogen" means fluorine, chlorine, bromine or iodine.

The agriculturally suitable composition of the invention for controlling the growth of undesired vegetation comprises an effective amount of a compound of Formula I or II as defined above and at least one of the following: surfactant, solid or liquid diluent.

The preferred compositions of the invention for reasons including ease of synthesis and/or greater herbicidal efficacy involve:

1. A compound of Formula I or II wherein \mathbb{R}^1 is Cl, Br or I;

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 R^2 is CN, CO_2H , CO_2CH_3 , $CO_2CH_2CH_3$, CHO, $C(O)NH_2$, $C(O)NHCH_3$, $C(O)N(CH_3)_2$, CH_2OH or $CH=NOR^7$ or $C(NH_2)=NOR^7$;

R³ is n-propyl; C₄-C₇ alkyl; C₂ alkyl substituted with phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; CH₂(C₃-C₆ cycloalkyl); phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; or OR¹²;

 R^{12} is C_2-C_4 alkyl;

2. A compound of Preferred 1 wherein R¹ is Cl or Br; R² is CN, CO₂H or C(O)NH₂;

 R^3 is C_4-C_7 alkyl, $CH_2(C_3-C_6$ cycloalkyl) or OR^{12} .

Specifically preferred is the compound 2-chloro-4-(2-methylpropoxy) benzamide.

Another embodiment of the invention is a method for controlling the growth of undesired vegetation which comprises applying to the locus to be protected an effective amount of a composition comprising a compound of Formula I or II as defined above.

The preferred method of use involves the compositions wherein the above preferred compounds are utilized.

DETAILED DESCRIPTION OF THE INVENTION

The compounds of Formulae I and II can be readily prepared by one skilled in the art by using the reactions and techniques described in Schemes 1 to 17 below. Many of the compounds disclosed herein are known in the art or can be prepared by well known literature procedures.

In some of the schemes, compounds of Formulae I and 35 II are represented by formulae with a floating \mathbb{R}^3

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substituent wherein \mathbb{R}^3 is attached at the 4- and 5-position, respectively (see Formula A below). The definitions of \mathbb{R}^{1} - \mathbb{R}^{31} and X are the same as defined for Formulae I and II above.

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$$R^3$$
 A R^2

 $4-R^3$ = Formula I 5-R³ = Formula II

In cases where the substituent of a starting material is not compatible with the reaction conditions described for any of the reaction schemes, it can be assumed that the substituent is converted to a protected form prior to the described reaction scheme and then deprotected after the reaction using commonly accepted protecting/ deprotecting techniques (as an example, see T. W. Greene and P. G. M. Wuts, "Protective Groups in Organic Synthesis", 2nd Edition, John Wiley and Sons, Inc., New York, 1991). Otherwise alternative approaches known to one skilled in the art are available.

The compounds of this invention are made by the following processes.

Introduction of R1

Scheme 1 illustrates the preparation of compound 1, a compound of Formula I or II wherein R¹=NO₂. Many nitrobenzenes are commercially available or can be prepared by literature methods. A variety of methods are known in the literature, for example, see J. March, Advanced Organic Chemistry, 3rd Ed., John Wiley and Sons, New York (1985) and references cited therein.

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Scheme 1

$$\mathbb{R}^3$$
 $\frac{\text{nitration}}{\mathbb{R}^3}$ \mathbb{R}^2

5 Anilines of Formula 2 can be prepared from nitro compounds of Formula 1 by reduction with tin II chloride (Scheme 2). Processes of this type are well known in the literature. For example, see T. Ho and C. M. Hong, Synthesis 1974 45. The aniline of Formula 10 2 can be converted to the halobenzene of Formula 3 (W=Cl, Br, or I) using the Sandmeyer reaction. Alternatively, the phenol of Formula 4 can be obtained from the aniline by preparation of the diazonium salt followed by hydrolysis. Methods of these types are 15 described in Sandler S. R.; Karo W., Organic Functional Group Preparations, Academic: New York, (1983); Chapters 13 and 17.

Scheme 2

Compounds of Formulae I and II wherein R^1 is OCH₃, OCHF₂ or OCF₃ can be prepared by the methods illustrated in Scheme 3.

Scheme 3

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Phenols of Formula 4 can be treated with a methylating agent, such as iodomethane or methylsulfate, and a base such as potassium carbonate, potassium hydroxide, potassium hydride, potassium t-butoxide, sodium hydride, sodium hydroxide or sodium carbonate in an inert solvent such as N,N-dimethylformamide, benzene, toluene, xylene or tetrahydrofuran. The reaction temperature ranges from 0-140°C and reaction time is between 30 minutes and 200 hours.

Upon completion of the reaction, the reaction mixture is concentrated under reduced pressure. Water is then added to the residue and extracted with organic solvent. The organic extract is dried over sodium sulfate or magnesium sulfate and concentrated to provide the crude anisole of Formula 5.

The crude product can be further purified by crystallization, distillation and flash column-chromatography if needed.

Compounds of Formula 6 and 7 are prepared by treating the phenol of Formula 4 with chlorodi-fluoromethane or chlorotrifluoromethane, respectively,

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under literature conditions (K. Morimoto, K. Makino, S. Yamamoto and G. Sakata, *J. Heterocycl. Chem.*, **1990**, 27, 807 and Fuss A.; Koch V., *Synthesis*, **1990**, 604 and 681-685).

5 Introduction of R²

Benzonitriles of Formula 9 can be prepared from the corresponding halobenzenes of Formula 8 by treatment with potassium cyanide or cuprous cyanide (Scheme 4). The halobenzene is dissolved or dispersed in a solvent such as N,N-dimethylformamide or N-methyl-2-pyrrolidone and treated with the cyanide salt at temperatures of 120-180°C for 1 to 24 hours. Aqueous work-up followed by purification by distillation, recrystallization, or column chromatography affords the desired material.

15 <u>Scheme 4</u>

$$\mathbb{R}^3$$
 \mathbb{R}^1
 \mathbb{R}^3
 \mathbb{R}^3
 \mathbb{R}^3
 \mathbb{R}^3

Alternatively, benzonitriles of Formula 9 can be prepared from nitrobenzenes of Formula 10 as illustrated in Scheme 4. The nitrobenzene is reduced to the aniline of Formula 11 by hydrogenation or methods described above. The aniline of Formula 11 can then be converted to the benzonitrile by formation of the diazonium salt followed by treatment with cuprous cyanide (see Sandler S. R.; Karo W., Organic Functional

Group Preparations, Academic: New York, (1983); Chapters 13 and 17).

The benzonitriles of Formula 9 can be converted to compounds of the present invention wherein R2=CO2R4, $C(X)NR^{17}R^{18}$, $C(halogen)=NOR^7$ and $C(S)OR^6$ as illustrated 5 in Scheme 5.

Scheme 5

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The cyano compound can be converted to the amide of Formula 10 according to Youngdale G. A.; Oglia T. F., J. Med. Chem. 1985, 28, 1790-96 using 30% aqueous hydrogen peroxide, methanol and sodium hydroxide or A. Katritzky; B. Pilarski and L. Urogdi, Synthesis 1989, 950 using 30% aqueous hydrogen peroxide, potassium carbonate and dimethylsulfoxide. addition, the cyano group in compounds of Formula 9 can be converted to carboxylic acids of Formula 11 using about 5-20% aqueous base such as sodium hydroxide or 10 potassium hydroxide (preferably 5%) at about 25 to 100°C for 1 to 24 hours. The carboxylic acid can be converted to the acid chloride of Formula 12 using thionylchloride or phosphorus oxychloride. chloride may be treated with R4OH to provide the 15 corresponding ester of Formula 13 under conditions well known to those versed in the art. In an analogous fashion the acid chloride may be treated with NHR17R18 to provide the corresponding amide of Formula 14.

The thioesters of Formula 15 and the thioamides of Formula 16 can be synthesized by treatment of the aforementioned esters and amides, respectively, with Lawesson's reagent (see Pedersen, B. S., Lawesson, S. O., Tetrahedron 1979, 2433-2437 and references cited therein).

The compounds of Formula 17 can be prepared from the amides of Formula 14 (Scheme 6). The amide is treated with a tetrahalomethane/triphenylphosphine reagent as described in the art (T. Sakamoto et al., Synthesis, 1991, 9, 950-952 and E. C. Taylor et al., J. Org. Chem., 1971, 36, 253).

Scheme 6

The anilines of Formula 11 can be converted to the benzaldehydes of Formula 18 by following the methods taught in H. E. Baumgarten, Ed. Organic Syntheses V, John Wiley, New York (1973) 139-142 or using obvious modifications thereof (Scheme 7).

10 Scheme 7

The benzaldehyde can be oxidized to the

15 corresponding carboxylic acid of Formula 19 using the methods disclosed in Dalcandle, E.; Montanari, F. J. Org. Chem. 1986, 51, 567-569 and Srivastava R. G., Venkataramani Synth. Commun. 1988, 18, 2193-2200. The carboxylic acid functionality can in turn be converted into the R² groups of the present invention as described above and illustrated in Scheme 5.

The benzaldehydes of Formula 18 can also be used to prepare other compounds of the present invention as illustrated in Scheme 8.

Scheme 8

The benzaldehyde of Formula 18 can be converted to the oxime of Formula 20 by reacting it with NH₂OR⁷. The aldehyde of Formula 18 can also be reacted with active methylene compounds of the type CH₂R²¹R²² and a base such as pyridine and potassium carbonate to 10 provide the olefin of Formula 21. The secondary alcohol of Formula 22 (R²=CH(C₁-C₂ alkyl)OH) can be prepared by treatment of the benzaldehyde with (C₁-C₂ alkyl)MgBr. Alcohols of Formulae I and II wherein R²=CH₂OH can be prepared by conventional

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reduction of benzaldehydes of Formula 18. These benzylic alcohols and the alcohols of Formula 22 can be treated with acetyl chloride or acetic anhydride under standard conditions to prepare compounds wherein R^{20} is C(0) CH₃.

The terminal alkyne of Formula 24 can be synthesized from the benzaldehyde of Formula 18 by the Corey-Fuchs homologation by treating the aldehyde first with carbon tetrabromide/triphenylphosphine to form the dibromoolefin of Formula 23, followed by treatment with n-butyllithium, rearrangement and quench with aqueous acid according to Corey, E. J., Fuchs, P. L., Tetrahedron Lett. 1972, 3769-3772 and references cited therein.

Cyanooximes of Formula 26 wherein R² = C(CN)=NOR⁷ can be prepared as illustrated in Scheme 9. The phenylacetonitrile of Formula 25 is treated with an alkylnitrite under basic conditions using the procedures described in Noland, W. E., ed., Organic Syntheses VI, John Wiley: New York (1988), pp 199-203.

Scheme 9

$$\mathbb{R}^3$$
 25 \mathbb{R}^3 26 \mathbb{R}^3 CH2 $\mathbb{R}^$

Compounds of Formula I and II wherein $R^2 = CHR^{19}(halogen)$, $CHR^{19}CN$, $CHR^{19}C(=0)NH_2$, and $CHR^{19}CO_2H$ can be prepared using the methods illustrated in Scheme 10. The alcohol of Formula 27 can be prepared using the method described in Scheme 8

 $(R^{19} = C_1 - C_2 \text{ alkyl})$ or by conventional reduction of the benzaldehyde as described previously $(R^{19} = H)$.

Scheme 10

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5% aq. NaOH

Treatment of the benzylic alcohol with a thionyl10 halide (e.g., thionylchloride) at 25-100°C in an inert
solvent such as benzene, toluene or dichloromethane for

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2-12 hours produces the halide of Formula 28.

Displacement of the halide with a cyanide salt, for example potassium cyanide, produces the nitrile of Formula 29. This method is described in Sandler, S. R., Karo, W. in Organic Functional Group Preparations, Academic: New York (1983); Chapter 17. The nitrile can be converted to the amide of Formula 30 or the carboxylic acid of Formula 31 using conditions described above for the coversion of nitriles to amides and acids (see Scheme 5).

Introduction of R3

Scheme 11 illustrates the preparation of compounds of Formula II wherein $R^3 = OR^{12}$ or $O-N=CR^{30}R^{31}$. In order for the nucleophilic aromatic substitution to occur, R^2 must be a powerful electron-withdrawing substituent such as cyano or nitro. The halobenzenes of Formulae 23 and 24 are either commercially available or can be prepared by one skilled in the art using well known methods.

20 Scheme 11

The halobenzene 32 is treated with R¹²OH or

25 HO-N=CR³⁰R³¹ and one equivalent of a base such as sodium hydride, potassium hydride, potassium hydroxide, potassium t-butoxide and sodium hydroxide in an inert solvent such as N,N-dimethylformamide, benzene, toluene, xylene and tetrahydrofuran. The reaction

temperature ranges from 0 to 140°C and reaction time is between 30 minutes and 120 hours.

Upon completion of the reaction, the reaction mixture is concentrated under reduced pressure. Water is then added to the residue and extracted with organic solvent. The organic extract is dried and concentrated to provide crude product. The crude phenylether of Formula 33 or 34 can be further purified by flash column chromatography if needed.

In a similar fashion, $R^{13}SH$ and $R^{14}R^{15}NH$ can be used instead of $R^{12}OH$ or $HO-N=CR^{30}R^{31}$ in the process illustrated in Scheme 11 to afford compounds of Formula II wherein $R^3=R^{13}S$ and $R^{14}R^{15}N$, respectively.

Compounds of Formula I wherein R³=OR¹² can be synthesized as illustrated in Scheme 12. The anisoles of Formula 35 are commercially available or can be synthesized by one skilled in the art by following literature methods or slight modifications thereof. Alternatively, the phenols of Formula 36 can be prepared from the nitro compounds as described above (see Scheme 2).

Scheme 12

CH₃O

R²

BBr₃

BBr₃

R²

R²

R²

R¹

G = I,
$$OSO_2Me$$

R¹²

R¹²

R¹²

R¹²

R¹

R²

R³

R³

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The complete demethylation of the methylether can be accomplished using boron tribromide (BBr3) or other

reagents described in a review by M. V. Bhatt and S. U. Kulkarni, *Synthesis* **1983**, 248-282. The phenol then can be alkylated to produce the R¹² ether of Formula 37.

The thiols can be prepared using the well-known methods four step procedure for converting anilines to thiols illustrated in Scheme 13. These synthetic steps are described in detail in Sandler, S. R.; Karo, W., Organic Functional Group Preparations, Academic: New York (1983), Chapters 16, 13, 4 and 18, respectively. Alkylation of the sulfur with $R^{13}L$ wherein L is a typical leaving group such as bromide, under standard conditions affords compounds of Formulae I and II wherein $R^3 = SR^{13}$.

Scheme 13

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$$R^2$$
 R^2
 R^2

Compounds of Formulae I and II wherein \mathbb{R}^3 is a mono- or disubstituted amino group and \mathbb{R}^{14} and \mathbb{R}^{15} are separate substituents can be prepared as illustrated in Scheme 14. Treatment of the aniline of Formula 38 with acetic anhydride affords the monoacetyl compound of Formula 39. N-Alkylation with $(C_1-C_2 \text{ alkyl})L$, wherein L is a leaving group such as iodide, affords compounds of Formula 40. Hydrolysis of the acetyl group with base affords the monoalkyl compound. A second

alkylation with $(C_1-C_2 \text{ alkyl})L$ affords the disubstituted compound of Formula 41.

Scheme 14

$$(C_1-C_2 \text{ alkyl})_2N$$
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Compounds of Formulae I and II wherein R¹⁴ and R¹⁵ are taken together to form a ring can be prepared by nucleophilic aromatic substitution as described above (Scheme 11). Alternatively, the aniline of Formula 38 in Scheme 14 may be alkylated with L-(CH₂)₄-L, L-(CH₂)₅-L or L-(CH₂)₂O(CH₂)₂-L to form the pyrrolidinyl, piperidinyl, and morpholinyl compounds, respectively.

Compounds of Formulae I and II wherein $R^3=CH_2OR^{16}$, CH_2SR^9 , and $CH_2NR^{14}R^{15}$ can be prepared starting from toluenes as illustrated in Scheme 15. The starting toluenes are commercially available or can be prepared

by one skilled in the art following literature methods or obvious modifications thereof.

Scheme 15

$$\begin{array}{c|c}
 & R^2 \\
 & R^1 \\
 & R^1 \\
 & R^2 \\
 & R^1 \\
 & R^2 \\
 & R^1 \\
 & Dase$$

$$\begin{array}{c|c}
 & R^2 \\
 & R^1 \\
 & Dase
\end{array}$$

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Toluenes of Formula 42 can be converted to bromomethyl compounds of Formula 43 using one equivalent of N-bromosuccinimide (NBS) in a solvent such as dichloromethane or carbon tetrachloride at a temperature between 25-100°C for 1 to 48 hours. The bromo compound can be converted to ethers of Formula 44 using R¹⁶OH and a base such as triethylamine, pyridine or potassium carbonate in an inert solvent such as N,N-dimethylformamide, benzene, toluene, xylene or tetrahydrofuran. The reaction temperature ranges from 0 to 140°C and reaction time is between 1 hour and 120 hours.

The bromo compound of Formula 43 can be reacted with R^9SH or $R^{14}R^{15}NH$ instead of $R^{14}OH$ using the same procedure outlined in Scheme 15 to prepare compounds of Formulae I and II wherein $R^3=CH_2SR^9$ or $CH_2NR^{14}R^{15}$.

Scheme 16 illustrates the synthesis of compounds of Formulae I and II wherein R^3 is n-propyl; C_4 - C_{10} alkyl; n-propyl or C_4 - C_7 alkyl substituted with one or more halogen, OR^8 , SR^9 or $NR^{10}R^{11}$; C_1 - C_3 alkyl substituted

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with OR^{16} , SR^9 , $NR^{14}R^{15}$, $CO_2(C_1-C_2 \text{ alkyl})$, or phenyl optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 or halogen; $CH_2(C_3-C_6 \text{ cycloalkyl})$, or $C_3-C_6 \text{ alkenyl}$ optionally substituted with one or more halogen or $CO_2(C_1-C_2 \text{ alkyl})$.

The R³² group in the Formulae of Scheme 16 can be n-ethyl; C₃-C₉ alkyl; n-ethyl or C₃-C₆ alkyl substituted with one or more halogen, OR⁸, SR⁹ or NR¹⁰R¹¹; C₁-C₂ alkyl substituted with OR¹⁶, SR⁹, NR¹⁴R¹⁵, CO₂(C₁-C₂ alkyl), or phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; C₃-C₆ cycloalkyl; or C₂-C₅ alkenyl optionally substituted with one or more halogen or CO₂(C₁-C₂ alkyl).

The acid chlorides of Formula 45 are commercially available or can be prepared using the methods disclosed herein or commonly known to one skilled in the art.

Scheme 16

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The acid chlorides of Formula 45 can be converted to ketones of Formula 46 using the methods described in Sandler S.R.; Karo W.; Organic Functional Group Preparation; Academic; New York, (1983); Chapter 8. The ketones of Formula 46 can be reduced to the

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methylene compounds of Formula 47 using a variety of reducing agents, for example sodium borohydride/ aluminum chloride, as described in Hudlicky, M., Reductions in Organic Chemistry, Eillis Horwood: New York; (1984) 107-132.

Compounds of Formulae I and II wherein R³ = alkyl or optionally substituted phenyl, pyridyl, thienyl, furyl, pyrazolyl, or thiazolyl can be prepared using a palladium-catalyzed cross-coupling reaction as illustrated in Scheme 17.

Scheme 17

Treatment of a phenyl bromide with an organozinc reagent of Formula R³Zn(halide) in the presence of tetrakis(triphenylphosphine)palladium (0) affords the R³ substituted compounds of Formulae I and II. Examples of this well-known procedure can be found in:

20 Y. Okamoto et al., J. Organomet. Chem. 1989, 369, 285-290; E. Erdik, Tetrahedron, 1992, 48, 9577-9648; Heathcock, C. H., ed. Organic Syntheses, Vol. 66, John Wiley: New York (1987), pp 67-74; and E. Negishi et al., J. Org. Chem., 1977, 42, 1821-1823.

Compounds of Formulae I and II wherein R³ is optionally substituted phenyl, furyl, thienyl or pyridyl can also be prepared by palladium-catalyzed cross-coupling with arylboronates using the procedures described in N. Miyaura et al., Synth. Commun., 1981, 11, 513, M. A. Siddiqui, V. Snieckus, Tetrahedron Lett., 1988, 5463, and W. J. Thompson et al., J. Org. Chem., 1988, 53, 2052.

In addition, compounds of Formulae I and II wherein R³ is optionally substituted pyridyl, thiazolyl, pyrrolyl, thienyl or furyl can be prepared by palladium-catalyzed cross-coupling with heteroaryl trialkylstannanes. Examples of the this procedure are also known in the literature. For example, see T. R. Bailey, Tetrahedron Lett., 1986, 4407 and A. Minato et al., Tetrahedron Lett., 1981, 5319.

EXAMPLE 1

10 Step A: Preparation of methyl 2-chloro-4-hydroxy benzoate

Under nitrogen, 6 g of thionyl chloride was added dropwise to ice cold (0°C) methanol (50 mL). The mixture was stirred at ambient temperature for 30 15 minutes. To this solution was then added 8.6 g of 2-chloro-4-hydroxy benzoic acid. The resulting mixture was heated at reflux for ~12 hours and then concentrated under reduced pressure. The residual solid was suspended in 100 mL of a mixture of hexane: diethyl ether (90:10) and the solid precipitate was 20 collected by filtration, washed with hexane, air dried and then dried in a vacuum oven to provide 6 g of the title product of Step A as a solid, m.p. 126-129°C; NMR (CDCl₃): ppm δ 7.84 (d, 1H); 6.96 (s, 1H); 6.78 (d of 25 d, 1H); 6.35 (b, s, 1H); 3.9 (s, 3H); IR (Nujol):

Step B: Preparation of Methyl 2-chloro-4-(2-methyl-propyloxy)benzoate

 3300 cm^{-1} , 1700 cm^{-1} (C=O).

To 3 g of methyl 2-chloro-4-hydroxy benzoate in

N, N-dimethyl formamide (25 mL), a solution of 3 g of
2-methyl-1-bromo propane in N, N-dimethylformamide
(5 mL) and 3 g of potassium carbonate was added. The
mixture was then heated at 90-95°C for 2 hours. After
heating the mixture was cooled to room temperature and
poured into water (100 mL). The mixture was then

extracted with diethylether (2 times with 50 mL). The diethylether extracts were combined, dried over magnesium sulfate and concentrated under reduced pressure to provide crude product. The isolated crude product was purified by silica gel flash column chromatography (Hexane: ethyl-acetate 8:2) to provide after evaporation of eluant 3 g of the title compound of Step B as a clear oil; NMR (CDCl₃): ppm δ 7.88 (d, 1H); 7.0 (s, 1H); 6.8 (d, 1H); 3.89 (s, 3H); 3.74 (d, 2H); 2.0 (m, 1H); 1.035 (d, 6H); IR (Neat): 1730 cm⁻¹ (C=O).

EXAMPLE 2

Preparation of 2-chloro-4-(2-methyl-propyloxy)benzoic acid

15 A mixture of 5 g of methyl 2-chloro-4-hydroxy benzoate, and 1.6 g potassium hydroxide in methanol (30 mL) was heated at reflux for ~3 hours and allowed to stir at ambient temperature for 12 hours. reaction mixture was concentrated under reduced 20 pressure. The residue was dissolved in water (50 mL) and extracted with diethyl ether (25 mL) and the diethyl ether extracts were discarded. The aqueous extract was acidified with concentrated hydrochloric acid to pH ~4 and the resulting solids were collected by filtration, washed with water (50 mL), hexane 25 (50 mL) and dried under vacuum overnight to provide 4.5 q of title compound as a white solid, m.p. 82-84°C; NMR (CDCl₃): ppm δ 8.0 (d, 1H); 7.0 (s, 1H); 6.8 (d, 1H); 3.78 (d, 2H); 2.1 (m, 1H); 1.02 (d, 6H); IR 30 $(Nujol): 1700 cm^{-1} (C=0).$

EXAMPLE 3

Preparation of 2-chloro-4-(2-methylpropyloxy)benzamide

Under nitrogen, 2.6 g of 2-chloro-4-(2-methyl-35 propyloxy)benzoic acid was dissolved in benzene (25 mL)

and thionyl chloride (5 mL) was added. The resulting solution was heated at reflux for 3 hours and concentrated under reduced pressure to provide an oil. The oil was dissolved in tetrahydrofuran (20 mL) and cooled to 0°C (ice bath) and 4 mL of aqueous ammonium hydroxide (30%) was added and stirred for 30 minutes. The mixture was concentrated under reduced pressure. To the residue, water (100 mL) was added and the resulting precipitate was collected by filtration, 10 washed with water and dried under vacuum to provide 1.4 g of the title compound as a white solid, m.p. 129-130°C; NMR (CDCl₃): ppm δ 7.85 (d, 1H); 6.92 (s, 1H); 6.86 (d, 1H); 6.6 (b,s, 1H); 6.5 (b,s, 1H); 3.74 (d, 2H); 2.2 (m, 1H); 1.03 (d, 6H); IR (Nujol): 3360, 15 $3170 \text{ cm}^{-1} \text{ (NH}_2), 1635 \text{ cm}^{-1} \text{ (C=O)}.$

EXAMPLE 4

Step A: Preparation of 2-bromo-5-hydroxy-benzoic acid Under nitrogen, 4.62 g of 2-bromo-5-methoxy benzoic acid was suspended in dichloromethane (50 mL). 20 mixture was cooled to 0°C and boron tribromide (60 mL, 1M solution in dichloromethane) was added dropwise. The clear solution was stirred at ambient temperature for 12 hours, cooled to 5°C. Water (25 mL) was subsequently added dropwise, the mixture stirred for 30 25 minutes and extracted with diethylether (2 times with 50 mL). The diethylether extracts were dried over magnesium sulfate and concentrated under reduced pressure to provide 2.2 g of the title compound of Step A as a solid, m.p. 179-181°C; NMR (Me₂SO-d₆): ppm 30 δ 10.0 (b,s, 1H); 7.48 (d, 1H); 7.13 (s, 1H); 6.8 (m, 1H); IR (Nujol): 1705 cm^{-1} (C=O).

Step B: Preparation of methyl 2-bromo-5-hydroxybenzoate

By the procedure of Example 1, Step A, 1.67 g of 2-bromo-5-hydroxy-benzoic acid was reacted with 5 mL

thionyl chloride in methanol (20 mL). The isolated crude product was washed with hexane and dried under vacuum to provide 1.8 g of title compound of Step B as a white solid, m.p. 92-95°C; NMR (CDCl₃): ppm δ 7.5 (d, 1H); 7.3 (m, 1H); 6.8 (m, 1H); 3.94 (s, 3H); IR (Nujol): 3400 cm⁻¹ (OH); 1700 cm⁻¹ (C=O).

Step C: Preparation of Methyl 2-bromo-5-(2-methyl-propyloxy)benzoate

By the procedure of Example 1, Step B, 1.2 g of methyl 2-bromo-5-hydroxy-benzoate was reacted with 0.816 g potassium carbonate and 0.816 g of 2-methyl-1-bromopropane in N,N-dimethylformamide (20 mL). The isolated crude product was purified by silica gel flash column chromatography (hexane: ethylacetate 8:2) to provide after evaporation of eluant 1 g of the title compound of Step C as an oil. NMR (CDCl₃): ppm δ 7.53 (d, 1H); 7.31 (m, 1H); 6.8 (d of d, 1H); 3.92 (s, 3H); 3.7 (d, 2H); 2.0 (m, 1H); 1.03 (d, 6H); IR (neat): 1740 cm⁻¹ (C=O).

20 EXAMPLE 5

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Preparation of Methyl 2-bromo-5-(2-methyl-propyloxy)benzoic acid

By the procedure of Example 2, 5.5 g of methyl 2-bromo-5-(2-methylpropyloxy)-benzoate was reacted with 1.7 g of potassium-hydroxide in methanol (50 mL) to provide 5 g of title compound as a white solid mp 105-109°C. NMR (CDCl₃): ppm δ 7.57 (d, 1H); 7.52 (s, 1H); 6.95 (m, 1H); 3.74 (d, 2H); 2.1 (m, 1H); 1.04 (d, 6H); IR (Nujol): 1665 cm⁻¹ (C=O).

EXAMPLE 6

<u>Preparation of 2-Bromo-5-(2-methyl-propyloxy)benzamide</u>

By the procedure of Example 3, 1.36 g of product of Example 5 was reacted first with thionylchloride 5 mL, and then 1.7 mL of aqueous ammonium hydroxide to

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provide 1 g title compound as a white solid mp $135-137^{\circ}$ C. NMR (CDCl₃): ppm δ 7.47 (d, 1H); 7.21 (s, 1H); 6.8 (d of d, 1H); 6.2 (b,s, 1H); 6.0 (b,s, 1H); 3.72 (d, 2H); 2.0 (m, 1H); 1.02 (d, 6H); IR (Nujol): 3350 cm⁻¹ (NH₂) 1640 cm⁻¹ (C=O).

EXAMPLE 7

Preparation of 2-Chloro-4-(3-trifluoro-methylphenyl)benzonitrile

To 5.4 g of 2-chloro-4-bromo-benzonitrile in 8 mL 10 of ethylene glycol dimethyl ether, 0.01 g of (Ph₃P)₂PdCl₂ was added and stirred at ambient temperature for 15 minutes. To this mixture 5.23 q of 3-trifluoromethylbenzeneboronic acid and 6.38 g of sodium bicarbonate in 40 mL water were added and heated at reflux for 2.5 h. The mixture was then cooled to 15 ambient temperature and extracted two times with 50 mL ethyl acetate. The combined ethyl acetate extracts were washed with 150 mL of 0.5 N aqueous sodium hydroxide and 50 mL of brine. The ethyl acetate 20 extracts were dried over magnesium sulfate and concentrated under reduced pressure to provide the title compound as a white solid, m.p. 92-98°C. 1H-NMR ppm δ 7.73 (m, 5H); 7.58 (m, 2H); 7.59 (m, $(CDCl_3):$ 1H). IR (Nujol): 2227 (C \equiv N) cm⁻¹.

EXAMPLE 8

Preparation of 2-Chloro-4-(3-trifluoro-methylphenyl)benzamide

To a solution of 1.41 g of the compound of Example 7 in dimethylsulfoxide (8 mL), 1.12 mL of 30% aqueous hydrogen peroxide and 0.28 g of potassium carbonate were added. The mixture exothermed to ~35°C; and was then heated to 60°C for 1 h. The mixture was allowed to come to room temperature and poured into water (50 mL). The resulting solid was collected, washed with 50 mL of water and hexanes and dried under

vacuum overnight to provide the title compound as a white solid, m.p. 138-145°C. 1 H NMR (CDCl₃): ppm δ 7.95 (d, 1H); 7.75 (m, 2H); 7.66 (m, 4H); 6.5 (bs, 1H); 6.0 (bs, 1H). IR (Nujol): 3367 (NH₂) cm⁻¹, 1649 (C=O) cm⁻¹.

EXAMPLE 9

<u>Preparation of 2-Chloro-4-(2-methyl-propyl)benzonitrile</u>

Under nitrogen, isobutylmagnesium chloride (8.6 mL, 10 2.0 M solution in diethyl ether) was added to a suspension of 2.3 g of zinc chloride in 40 mL of tetrahydrofuran. The mixture was stirred at ambient temperature for 45 minutes. To this mixture was then added 3.6 g of 2-chloro-4-bromo benzonitrile and 0.4 g of tetrakis (triphenylphosphine) palladium (O). 15 resulting mixture was stirred at ambient temperature for 12 h, and then heated at reflux for 2 h. mixture was then cooled to room temperature and acidified with 1 N aqueous hydrochloric acid. mixture was then extracted two times with 50 mL of diethyl ether. The organic layer was washed each with 20 mL of saturated aqueous NaHCO3, water and brine. The diethyl ether extract was dried over magnesium sulfate and concentrated under reduced pressure to provide crude product. The isolated crude product was 25 purified by silica gel flash column chromatography (hexane:ethyl acetate 9:1) to provide after evaporation of eluant 2.12 g of the title compound as a clear oil; ¹H NMR (CDCl₃): ppm δ 7.57 (d, 1H); 7.3 (s, 1H); 7.15 (d, 1H); 2.51 (d, 2H); 1.9 (m, 1H); 0.91 (d, 6H); IR 30 (Neat): $2210 (C \equiv N) cm^{-1}$.

EXAMPLE 10

Preparation of 2-Chloro-4-(2-methyl-

propyl)benzamide

Using the same procedure described in Example 8, 5 0.97 g of product of Example 9 was reacted with 1.12 mL 30% aqueous hydrogen peroxide and 0.28 g potassium carbonate in dimethylsulfoxide (8 mL). The isolated crude product was washed with hexanes and dried under vacuum to provide 0.8 g of the title compound as a white solid, m.p. 97-107°C. ¹H NMR (CDCl₃): ppm δ 10 7.74 (d, 1H); 7.2 (s, 1H); 7.125 (d, 1H); 6.43 (bs, 1H); 6.05 (bs, 1H); 2.48 (d, 2H); 1.9 (m, 1H); 0.91 (d, 6H). IR (Neat): 3375 (NH₂) cm⁻¹, 1647 (C=O) cm⁻¹. Using the general procedures described in Schemes 15 1-17 and Examples 1-10 or by obvious modifications thereof, one skilled in the art can prepare the

compounds of Tables 1-2.

TABLE 1

 $R^1 = C1$, $R^2 = C(0) NH_2$ cyclobutyl \mathbb{R}^3 cyclopentyl (CH₂)₂CH₃ cyclohexyl $(CH_2)_3CH_3$ CH₂OCH₂CH₃ CH2OCH2CH2CH3 (CH₂)₄CH₃ (CH₂)₅CH₃ CH2OCH2CH(CH3)2 $CH_2OCH_2(C_6H_5)$ (CH₂) 6CH₃ (CH₂)₇CH₃ CH_2OCH_2 (3 $CF_3-C_6H_4$) $CH_2OCH_2 (2C1-C_6H_4)$ (CH₂)₈CH₃ (CH₂) 9CH₃ CH_2OCH_2 (3SCH₃-C₆H₄) CH2CH (CH3) 2 CH_2OCH_2 (4C1-C₆H₄) CH₂C (CH₃)₃ $CH_2OCH_2(2, 4F-C_6H_3)$ CH2CH2CH(CH3)2 CH2CH2OCH2CH2CH3 CH2CH2CH2CH(CH3)2 CH₂O (C₆H₅) CH_2CH_2CH (CH_3) $CH_2CH_2CH_3$ $CH_2O(3CF_3-C_6H_4)$ CH2CH (CH3) CH2CH2CH3 $CH_2O(4CF_3-C_6H_4)$ CH₂O(2C1-C₆H₄) CH2CH (CH2CH3) CH2CH3 CH2O(3SCH3-C6H4) $CH_2CH_2CH_2OCH_2CH_3$ $CH_2CH_2CH_2CH_2OCH_3$ $CH_2O(2CH_3-C_6H_4)$ CH2CH2CH2-S-CH2CH3 $CH_2O(4C1-C_6H_4)$ CH2CH2CH2CH2SCH3 $CH_2O(2, 4C1-C_6H_3)$ CH2CH2CH2NHCH2CH3 CH2SCH2CH3 CH2CF2CH(CH3)2 CH2SCH2CH2CH3 CH2CH2CH2CF2CH3 CH2SCH2CH (CH3) 2 $CH_2SCH_2(C_6H_5)$ CH₂-cyclopropyl CH₂-cyclobutyl $CH_2SCH_2(3CF_3-C_6H_4)$ CH₂S (2C1-C₆H₄) CH2-cyclopentyl CH2S (4CH3-C6H4) CH2-cyclohexyl $CH_2S(2,4C1-C_6H_3)$ cyclopropyl

CH2S (3SCH3-C6H4) $CH_2S(2,6C1-C_6H_3)$ $CH_2S(C_6H_5)$ $CH_2S(3CF_3-C_6H_4)$ CH₂S (2C1-C₆H₄) $CH_2S(4CH_3-C_6H_4)$ $CH_2S(2,6C1-C_6H_3)$ $CH_2S(2,4C1-C_6H_3)$ CH2NHCH2CH3 CH2NHCH2CH2CH3 $CH_2NHCH_2C(C_6H_5)$ CH2NHCH2CH (CH3)2 CH_2NHCH_2 (3CF₃-C₆H₄) $CH_2NHCH_2(2C1-C_6H_4)$ CH2NH (C6H5) $CH_2NH(2C1-C_6H_4)$ $CH_2N(CH_3)(2C1-C_6H_4)$ OCH2CH2CH3 OCH₂ (CH₂) ₂CH₃ OCH2 (CH2) 3CH3 осн₂ (сн₂) ₅сн₃ OCH₂C (C₆H₅) OCH₂CH₂CH (CH₃)₂ OCH2-Si(CH3)3 OCH₂ CH $OCH_2 (3CF_3 - C_6H_4)$ осн₂ (2С1-С6Н₄) OCH2CH (CH3) 2

O(C ₆ H ₅)	ин (С ₆ н ₅)	CH ₂ (2C1-C ₆ H ₄)
O(3CF ₃ -C ₆ H ₄)	NH (3CF ₃ -C ₆ H ₄)	CH ₂ (4C1-C ₆ H ₄)
O(2C1-C ₆ H ₄)	NH (2C1-C ₆ H ₄)	CH ₂ (2,4C1-C ₆ H ₃)
O(4SCH3-C6H4)	NH (3CH3-C6H4)	CH ₂ (3SCH ₃ -C ₆ H ₄)
$0(2,4C1-C_6H_3)$	NH(2,4C1-C6H3)	CH ₂ (30CH ₃ -C ₆ H ₄)
SCH2CH2CH3	NH(2,6C1-C ₆ H ₃)	CH ₂ (3C1-C ₆ H ₄)
SCH ₂ (CH ₂) ₂ CH ₃	$N(CH_3)(3CF_3-C_6H_4)$	CH ₂ (2, 6F-C ₆ H ₃)
SCH2 (CH2) 3CH3	n(CH ₃)CH ₂ CH ₂ CH ₃	CH ₂ (2,6C1-C ₆ H ₃)
SCH2 (CH2) 5CH3	N (CH ₂) ₄	CH ₂ (3, 4F-C ₆ H ₃)
scH ₂ (C ₆ H ₅)	N (CH ₂) 5	CH ₂ -Si (CH ₃) ₃
SCH2 (3SCH3-C6H4)	N (CH ₂) 6	ON=C (CH ₃) ₂
SCH ₂ (20CH ₃ -C ₆ H ₄)	N(CH2CH2-OCH2CH2)2	ON=CH (C ₆ H ₅)
$SCH_2(2C1-C_6H_4)$	сн ₂ со ₂ сн ₃	ON=C (CH ₃) C ₆ H ₅
$SCH_2(2,4-C_6H_3)$	CH2CH2CO2CH2CH3	OCH ₂ (2,6-C1-C ₆ H ₃)
$SCH_2(4CF_3-C_6H_4)$	сн ₂ сн ₂ со ₂ сн ₃	OCH ₂ (C=CH ₂) CH ₃
S (CH ₃) 3	CH ₂ CH ₂ OCH ₂ CH ₃	OCH ₂ -CH ₂ CH ₂
SCH2CH (CH3)2	CH2CH2SCH2CH3	CH ₂
S (C ₆ H ₅)	CH ₂ CH ₂ -NHCH ₂ CH ₃	4F-C ₆ H ₄
S (3CF ₃ -C ₆ H ₄)	CH2CH2N (CH3) CH2CH3	4C1-C ₆ H ₄
S(2C1-C6H4)	CH=CH (CH ₃) ₂	4Br-C ₆ H ₄
S (40CH3-C6H4)	CH ₂ CH ₂ CH=CH ₂	2-pyridyl
$S(2,4C1-C_6H_3)$	CH ₂ CH=CH-CH ₃	2-furyl
$S(2,6F-C_6H_3)$	CH=CH-CH ₂ CH ₂ -C1	2-thiazolyl
2 (3CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH-C1CH ₂ -C1	2-imidazolyl
NHCH2CH2CH3	С ₆ н ₅	0-2 (3CF ₃ -C ₅ H ₃ N)
NHCH ₂ (CH ₂) ₂ CH ₃	3CF ₃ -C ₆ H ₄	0-2C1-6CF ₃ -C ₆ H ₃
NHCH ₂ (CH ₂) ₄ CH ₃	2C1-C ₆ H ₄	
NHCH ₂ (CH ₂) ₅ CH ₃	3CH ₃ -C ₆ H ₄	$R^{1}=Br$, $R^{2}=C(0)NH_{2}$
NHCH ₂ CH (CH ₃) ₂	30CH ₃ -C ₆ H ₄	R ³
NHCH ₂ (C ₆ H ₅)	2CF ₃ -C ₆ H ₄	(CH ₂) ₂ CH ₃
NHCH2 (3CF3-C6H4)	2,4C1-C ₆ H ₃	(CH ₂) ₃ CH ₃
$NHCH_2 (2C1-C_6H_4)$	2,6C1-C ₆ H ₃	(CH ₂) ₄ CH ₃
$\mathrm{NHCH}_{2}\left(4\mathrm{CH}_{3}\mathrm{-C}_{6}\mathrm{H}_{4}\right)$	2SCH3-C6H4	(CH ₂) ₅ CH ₃
$NHCH_2$ (2, $4C1-C_6H_3$)	CH ₂ (C ₆ H ₅)	(CH ₂) 6CH ₃
$NHCH_2$ (2, 6C1-C ₆ H ₃)	CH ₂ (3CF ₃ -C ₆ H ₄)	(CH ₂) ₇ CH ₃

	1	1
(CH ₂) ₈ CH ₃	CH ₂ O(4CF ₃ -C ₆ H ₄)	OCH ₂ C (C ₆ H ₅)
(CH ₂) ₉ CH ₃	CH ₂ O(2C1-C ₆ H ₄)	OCH ₂ (3CF ₃ -C ₆ H ₄)
СH ₂ CH (СH ₃) ₂	CH ₂ O(3SCH ₃ -C ₆ H ₄)	OCH ₂ (2C1-C ₆ H ₄)
CH ₂ CH ₂ CH (CH ₃) ₂	CH ₂ O (2CH ₃ -C ₆ H ₄)	OCH ₂ CH (CH ₃) ₂
$\mathrm{CH_2CH_2CH_2CH}$ ($\mathrm{CH_3}$) 2	CH ₂ O(4C1-C ₆ H ₄)	O(C ₆ H ₅)
$\mathrm{CH_2CH_2CH}$ ($\mathrm{CH_3}$) $\mathrm{CH_2CH_2CH_3}$	CH ₂ O(2,4C1-C ₆ H ₃)	O(3CF ₃ -C ₆ H ₄)
$\mathrm{CH_2CH}(\mathrm{CH_3})\mathrm{CH_2CH_2CH_3}$	CH ₂ SCH ₂ CH ₃	O(2C1-C6H4)
CH2CH (CH2CH3) CH2CH3	CH2SCH2CH2CH3	O(4SCH3-C6H4)
CH2CH2CH2OCH2CH3	CH2SCH2CH(CH3)2	O(2,4C1-C6H3)
сн ₂ сн ₂ сн ₂ сн ₂ осн ₃	CH ₂ SCH ₂ (C ₆ H ₅)	SCH2CH2CH3
CH2CH2CH2-S-CH2CH3	CH2SCH2 (3CF3-C6H4)	scн ₂ (сн ₂) ₂ сн ₃
сн ₂ сн ₂ сн ₂ сн ₂ sсн ₃	CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (CH ₂) ₃ CH ₃
CH2CH2CH2NHCH2CH3	CH ₂ S (4CH ₃ -C ₆ H ₄)	SCH2 (CH2) 5CH3
CH2CF2CH (CH3)2	CH ₂ S(2,4C1-C ₆ H ₃)	SCH ₂ (C ₆ H ₅)
CH2CH2CH2CF2CH3	СH ₂ S (3SCH ₃ -C ₆ H ₄)	SCH2 (3SCH3-C6H4)
CH2-cyclopropyl	CH ₂ S(2,6C1-С ₆ H ₃)	SCH ₂ (20CH ₃ -C ₆ H ₄)
CH ₂ -cyclobutyl	сн ₂ s (с ₆ н ₅)	SCH ₂ (2C1-C ₆ H ₄)
CH2-cyclopentyl	CH ₂ S (3CF ₃ -C ₆ H ₄)	SCH ₂ (2, 4-C ₆ H ₃)
CH2-cyclohexyl	CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (4CF ₃ -C ₆ H ₄)
cyclopropyl	CH ₂ S (4CH ₃ -C ₆ H ₄)	s (CH ₃) 3
cyclobutyl	CH ₂ S (2, 6C1-C ₆ H ₃)	SCH ₂ CH (CH ₃) ₂
cyclopentyl	CH ₂ S (2, 4C1-C ₆ H ₃)	s (C ₆ H ₅)
cyclohexyl	CH2NHCH2CH3	S (3CF3-C6H4)
CH2OCH2CH3	сн ₂ инсн ₂ сн ₂ сн ₃	s (2C1-C6H4)
CH2OCH2CH2CH3	СH ₂ NHCH ₂ C (С ₆ H ₅)	S (40CH3-C6H4)
CH2OCH2CH (CH3)2	сн ₂ инсн ₂ сн (сн ₃) ₂	s(2,4C1-C6H3)
CH ₂ OCH ₂ (C ₆ H ₅)	СH ₂ NHCH ₂ (3СF ₃ -С ₆ H ₄)	s(2,6F-C ₆ H ₃)
CH ₂ OCH ₂ (3CF ₃ -C ₆ H ₄)	СH ₂ NHCH ₂ (2С1-С ₆ H ₄)	2 (3CH3-C6H4)
CH ₂ OCH ₂ (2Cl-C ₆ H ₄)	СH ₂ NH (С ₆ H ₅)	NHCH2CH2CH3
CH_2OCH_2 (3SCH ₃ -C ₆ H ₄)	CH ₂ NH (2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₂ CH ₃
$CH_2OCH_2 (4C1-C_6H_4)$	CH ₂ N(CH ₃)(2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₄ CH ₃
CH ₂ OCH ₂ (2, 4F-C ₆ H ₃)	осн ₂ сн ₂ сн ₃	NHCH ₂ (CH ₂) ₅ CH ₃
CH2CH2OCH2CH2CH3	осн ₂ (сн ₂) ₂ сн ₃	NHCH ₂ CH (CH ₃) ₂
CH ₂ O (C ₆ H ₅)	осн ₂ (сн ₂) ₃ сн ₃	инсн ₂ (с ₆ н ₅)
CH ₂ O(3CF ₃ -C ₆ H ₄)	осн ₂ (сн ₂) ₅ сн ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)

 $NHCH_2 (2C1-C_6H_4)$ $NHCH_2$ ($4CH_3-C_6H_4$) $NHCH_2$ (2, $4C1-C_6H_3$) $NHCH_2$ (2,6C1-C6H3) NH (C6H5) NH $(3CF_3-C_6H_4)$ $NH(2C1-C_6H_4)$ NH $(3CH_3-C_6H_4)$ $NH(2,4C1-C_6H_3)$ $NH(2,6C1-C_6H_3)$ $N(CH_3)(3CF_3-C_6H_4)$ N(CH3)CH2CH2CH3 N (CH₂) 4 N (CH₂)₅ N(CH₂)₆ $N(CH_2CH_2-OCH_2CH_2)_2$ CH2CO2CH3 CH2CH2CO2CH2CH3 CH2CH2CO2CH3 CH2CH2OCH2CH3 CH2CH2SCH2CH3 CH2CH2-NHCH2CH3 CH2CH2N (CH3) CH2CH3 CH=CH (CH₃)₂ CH2CH2CH=CH2 CH2CH=CH-CH3 CH=CH-CH2CH2-C1 CH2CH2CH-ClCH2-Cl C₆H₅ 3CF3-C6H4 2C1-C6H4 3CH3-C6H4 30CH3-C6H4 2CF3-C6H4

2,4C1-C6H3

2,6C1-С₆H₃ 2SCH3-C6H4 $CH_2 (C_6H_5)$ $CH_2 (3CF_3 - C_6H_4)$ $CH_2(2C1-C_6H_4)$ CH2 (4C1-C6H4) $CH_2(2,4C1-C_6H_3)$ CH2 (3SCH3-C6H4) $CH_2(30CH_3-C_6H_4)$ $CH_2 (3C1-C_6H_4)$ $CH_2(2, 6F-C_6H_3)$ $CH_2(2,6C1-C_6H_3)$ $CH_2(3, 4F-C_6H_3)$ CH2-Si (CH3) 3 ON= $C(CH_3)_2$ $ON=CH(C_6H_5)$ $ON=C(CH_3)C_6H_5$ $OCH_2(2, 6-C1-C_6H_3)$ OCH₂ (C=CH₂) CH₃ 4F-C6H4 4C1-C6H4 4Br-C6H4 2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl $0-2 (3CF_3-C_5H_3N)$ 0-2C1-6CF3-C6H3 $R^{1}=I$, $R^{2}=C(0)NH_{2}$ \mathbb{R}^3 (CH₂)₂CH₃(CH₂)₃CH₃

(CH₂)₄CH₃ (CH₂)₅CH₃ (CH₂) 6CH₃ (CH₂)₇CH₃ (CH₂) 8CH₃ (CH₂) 9CH₃ CH₂CH (CH₃)₂ CH2CH2CH (CH3) 2 CH2CH2CH2CH(CH3)2 CH2CH2CH (CH3) CH2CH2CH3 CH2CH (CH3) CH2CH2CH3 CH2CH (CH2CH3) CH2CH3 CH2CH2CH2OCH2CH3 CH2CH2CH2CH2OCH3 CH2CH2CH2-S-CH2CH3 CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH(CH3)2 CH2CH2CH2CF2CH3 CH2-cyclopropyl CH2-cyclobutyl CH2-cyclopentyl CH2-cyclohexyl cyclopropyl cyclobutyl cyclopentyl cyclohexyl CH2OCH2CH3 CH2OCH2CH2CH3 CH2OCH2CH (CH3) 2 CH2OCH2 (C6H5) CH_2OCH_2 (3CF₃-C₆H₄) CH_2OCH_2 (2C1- C_6H_4) СH₂OCH₂ (3SCH₃-С₆H₄) CH2OCH2 (4C1-C6H4)

CH ₂ OCH ₂ (2, 4F-C ₆ H ₃)	OCH ₂
CH2CH2OCH2CH2CH3	OCH ₂
CH ₂ O (C ₆ H ₅)	OCH ₂
CH ₂ O(3CF ₃ -C ₆ H ₄)	осн2
CH ₂ O(4CF ₃ -C ₆ H ₄)	OCH ₂
CH ₂ O(2C1-C ₆ H ₄)	осн2
CH ₂ O(3SCH ₃ -C ₆ H ₄)	осн2
CH ₂ O(2CH ₃ -C ₆ H ₄)	осн ₂
CH ₂ O(4C1-C ₆ H ₄)	o(c6
CH ₂ O(2,4C1-C ₆ H ₃)	0 (30
CH2SCH2CH3	0 (20
CH2SCH2CH2CH3	0 (48
CH2SCH2CH (CH3) 2	0(2,
CH ₂ SCH ₂ (C ₆ H ₅)	SCH ₂
CH_2SCH_2 (3CF ₃ -C ₆ H ₄)	SCH ₂
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂
CH ₂ S (4CH ₃ -C ₆ H ₄)	SCH ₂
CH ₂ S (2, 4C1-C ₆ H ₃)	SCH ₂
CH ₂ S (3SCH ₃ -C ₆ H ₄)	SCH ₂
CH ₂ S (2,6C1-C ₆ H ₃)	SCH ₂
CH ₂ S (C ₆ H ₅)	SCH ₂
CH ₂ S (3CF ₃ -C ₆ H ₄)	SCH ₂
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂
CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH
CH ₂ S(2,6C1-C ₆ H ₃)	scH ₂
CH ₂ S(2,4C1-C ₆ H ₃)	s (C ₆
CH2NHCH2CH3	s (3C
CH2NHCH2CH2CH3	S (2C
CH ₂ NHCH ₂ C(C ₆ H ₅)	S (40
CH ₂ NHCH ₂ CH (CH ₃) ₂	S(2,
CH ₂ NHCH ₂ (3CF ₃ -C ₆ H ₄)	S(2,
CH ₂ NHCH ₂ (2C1-C ₆ H ₄)	2 (3C
CH ₂ NH (C ₆ H ₅)	NHCH
CH ₂ NH (2C1-C ₆ H ₄)	NHCH
$CH_2N(CH_3)$ (2C1- C_6H_4)	NHCH

CH ₂ CH ₂ CH ₃	NHCH ₂ (CH ₂) ₅ CH ₃
СH ₂ (СH ₂) ₂ СH ₃	NHCH2CH (CH3)2
СH ₂ (СH ₂) ₃ СH ₃	инсн ₂ (с ₆ н ₅)
СH ₂ (СH ₂) ₅ СH ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)
CH ₂ C(C ₆ H ₅)	NHCH ₂ (2C1-C ₆ H ₄)
CH ₂ (3CF ₃ -C ₆ H ₄)	NHCH ₂ (4CH ₃ -C ₆ H ₄)
CH ₂ (2C1-C ₆ H ₄)	NHCH ₂ (2,4C1-C ₆ H ₃)
CH ₂ CH (CH ₃) ₂	инсн ₂ (2,6С1-С ₆ н ₃)
(C ₆ H ₅)	NH (C ₆ H ₅)
(3CF ₃ -C ₆ H ₄)	NH (3CF ₃ -C ₆ H ₄)
(2C1-C ₆ H ₄)	NH (2C1-C ₆ H ₄)
(4SCH ₃ -C ₆ H ₄)	NH (3CH3-C6H4)
(2,4C1-C ₆ H ₃)	NH(2,4C1-C6H3)
CH ₂ CH ₂ CH ₃	NH(2,6C1-C ₆ H ₃)
CH ₂ (CH ₂) ₂ CH ₃	N(CH ₃) (3CF ₃ -C ₆ H ₄)
CH ₂ (CH ₂) ₃ CH ₃	n (CH3) CH2CH2CH3
СH ₂ (СH ₂) ₅ СH ₃	n (CH ₂) ₄
СH ₂ (С ₆ H ₅)	N (CH ₂) 5
CH ₂ (3SCH ₃ -C ₆ H ₄)	N (CH ₂) 6
CH ₂ (20CH ₃ -C ₆ H ₄)	N(CH2CH2-OCH2CH2)2
CH ₂ (2C1-C ₆ H ₄)	сн ₂ со ₂ сн ₃
CH ₂ (2,4-C ₆ H ₃)	CH ₂ CH ₂ CO ₂ CH ₂ CH ₃
CH ₂ (4CF ₃ -C ₆ H ₄)	CH2CH2CO2CH3
(CH ₃) ₃	СH ₂ CH ₂ ОСH ₂ СH ₃
СН ₂ СН (СН ₃) ₂	CH ₂ CH ₂ SCH ₂ CH ₃
(C ₆ H ₅)	CH2CH2-NHCH2CH3
(3CF ₃ -C ₆ H ₄)	CH2CH2N (CH3) CH2CH3
(2C1-C ₆ H ₄)	CH=CH (CH ₃) 2
(40CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH=CH ₂
(2,4C1-C ₆ H ₃)	CH ₂ CH=CH-CH ₃
(2,6F-C ₆ H ₃)	Сн=Сн-Сн ₂ Сн ₂ -С1
(3CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH-C1CH ₂ -C1
HCH ₂ CH ₂ CH ₃	С ₆ н ₅
HCH ₂ (CH ₂) ₂ CH ₃	3CF3-C6H4
HCH ₂ (CH ₂) ₄ CH ₃	2C1-C6H4

3CH3-C6H4	$R^1 = OCH_3$, $R^2 = C(0) NH_2$
30CH ₃ -C ₆ H ₄	R ³
2CF ₃ -C ₆ H ₄	(CH ₂) ₂ CH ₃
2,4C1-C ₆ H ₃	(CH ₂) ₃ CH ₃
2,6C1-C6H3	(CH ₂) ₄ CH ₃
2SCH3-C6H4	(CH ₂) ₅ CH ₃
CH ₂ (C ₆ H ₅)	(CH ₂) ₆ CH ₃
$CH_2(3CF_3-C_6H_4)$	(CH ₂) ₇ CH ₃
$CH_2(2C1-C_6H_4)$	(CH ₂) ₈ CH ₃
$CH_2(4C1-C_6H_4)$	(CH ₂) ₉ CH ₃
$CH_2(2,4C1-C_6H_3)$	CH ₂ CH (CH ₃) ₂
CH ₂ (3SCH ₃ -C ₆ H ₄)	СH ₂ CH ₂ CH (СH ₃) ₂
CH ₂ (30CH ₃ -C ₆ H ₄)	СH ₂ CH ₂ CH ₂ CH (СH ₃) ₂
CH ₂ (3C1-C ₆ H ₄)	Сн ₂ Сн ₂ Сн (Сн ₃) Сн ₂ Сн ₂ Сн
$CH_2(2,6F-C_6H_3)$	СH ₂ CH (СH ₃) CH ₂ CH ₂ CH ₃
CH ₂ (2,6C1-C ₆ H ₃)	сн ₂ сн (сн ₂ сн ₃) сн ₂ сн ₃
$CH_2(3, 4F-C_6H_3)$	CH2CH2CH2OCH2CH3
CH_2 -Si(CH_3) ₃	сн ₂ сн ₂ сн ₂ сн ₂ осн ₃
ON=C (CH ₃) ₂	CH ₂ CH ₂ CH ₂ -S-CH ₂ CH ₃
$ON=CH(C_6H_5)$	CH ₂ CH ₂ CH ₂ CH ₂ SCH ₃
$ON=C(CH_3)C_6H_5$	сн ₂ сн ₂ сн ₂ инсн ₂ сн ₃
$OCH_2(2,6-C1-C_6H_3)$	CH2CF2CH(CH3)2
OCH ₂ (C=CH ₂) CH ₃	CH2CH2CH2CF2CH3
OCH ₂ -CH CH ₂	CH2-cyclopropyl
CH ₂	CH ₂ -cyclobutyl
4F-C ₆ H ₄	CH ₂ -cyclopentyl
4C1-C ₆ H ₄	CH ₂ -cyclohexyl
4Br-C ₆ H ₄	cyclopropyl
2-pyridyl	cyclobutyl
2-furyl	cyclopentyl
2-thiazolyl	cyclohexyl
2-imidazolyl	CH ₂ OCH ₂ CH ₃
O-2 (3CF ₃ -C ₅ H ₃ N)	CH2OCH2CH2CH3
0-2C1-6CF ₃ -C ₆ H ₃	СH ₂ ОСH ₂ СH (СH ₃) ₂
5 0 5	сн ₂ осн ₂ (с ₆ н ₅)

 $CH_2OCH_2 (3CF_3 - C_6H_4)$ СH₂OCH₂ (2C1-С₆H₄) CH₂OCH₂ (3SCH₃-C₆H₄) $CH_2OCH_2(4C1-C_6H_4)$ СH₂OCH₂ (2, 4F-С₆H₃) CH2CH2OCH2CH2CH3 СH₂O (С₆H₅) $CH_2O(3CF_3-C_6H_4)$ CH₂O(4CF₃-C₆H₄) CH₂O(2C1-C₆H₄) СH₂O (3SCH₃-C₆H₄) СH₂O (2СH₃-С₆H₄) CH₂O(4C1-C₆H₄) $CH_2O(2, 4C1-C_6H_3)$ CH2SCH2CH3 CH2SCH2CH2CH3 CH2SCH2CH(CH3)2 CH2SCH2 (C6H5) $CH_2SCH_2(3CF_3-C_6H_4)$ CH₂S (2C1-C₆H₄) CH₂S (4CH₃-C₆H₄) $CH_2S(2, 4C1-C_6H_3)$ СH₂S (3SCH₃-С₆H₄) CH₂S (2,6C1-С6H₃) CH₂S (C₆H₅) CH₂S (3CF₃-C₆H₄) CH₂S (2C1-C₆H₄) CH₂S (4CH₃-C₆H₄) CH₂S (2,6C1-С₆H₃) CH₂S (2, 4C1-C₆H₃) CH2NHCH2CH3 CH2NHCH2CH2CH3 $CH_2NHCH_2C(C_6H_5)$ CH2NHCH2CH (CH3) 2 CH₂NHCH₂ (3CF₃-C₆H₄)

```
2 (3CH3-C6H4)
 NHCH2CH2CH3
                                                     C<sub>6</sub>H<sub>5</sub>
 NHCH<sub>2</sub> (CH<sub>2</sub>) <sub>2</sub>CH<sub>3</sub>
 NHCH<sub>2</sub> (CH<sub>2</sub>) 4CH<sub>3</sub>
 NHCH<sub>2</sub> (CH<sub>2</sub>) <sub>5</sub>CH<sub>3</sub>
 NHCH2CH (CH3) 2
 инсн<sub>2</sub> (С<sub>6</sub>н<sub>5</sub>)
 NHCH_2 (3CF<sub>3</sub>-C<sub>6</sub>H<sub>4</sub>)
 NHCH<sub>2</sub> (2Cl-C<sub>6</sub>H<sub>4</sub>)
 NHCH<sub>2</sub> (4CH<sub>3</sub>-C<sub>6</sub>H<sub>4</sub>)
 NHCH<sub>2</sub> (2, 4C1-C<sub>6</sub>H<sub>3</sub>)
 NHCH_2(2,6C1-C_6H_3)
 NH (C<sub>6</sub>H<sub>5</sub>)
 NH (3CF3-C6H4)
 NH (2C1-C6H4)
 NH (3CH3-C6H4)
 NH (2,4C1-C6H3)
NH (2,6C1-C6H3)
N(CH_3)(3CF_3-C_6H_4)
и (сн<sub>3</sub>) сн<sub>2</sub>сн<sub>2</sub>сн<sub>3</sub>
N(CH_2)_4
N(CH_2)_5
N (CH<sub>2</sub>) 6
N(CH_2CH_2-OCH_2CH_2)_2
СH<sub>2</sub>CO<sub>2</sub>CH<sub>3</sub>
CH2CH2CO2CH2CH3
CH2CH2CO2CH3
CH2CH2OCH2CH3
CH2CH2SCH2CH3
CH2CH2-NHCH2CH3
CH_2CH_2N(CH_3)CH_2CH_3
CH=CH (CH<sub>3</sub>)<sub>2</sub>
CH2CH2CH=CH2
CH2CH=CH-CH3
CH=CH-CH<sub>2</sub>CH<sub>2</sub>-Cl
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CH2CH2CH-C1CH2-C1 3CF3-C6H4 2C1-C6H4 3CH3-C6H4 30CH3-C6H4 2CF3-C6H4 2,4C1-C6H3 2,6C1-C6H3 2SCH3-C6H4 CH₂ (C₆H₅) $CH_2 (3CF_3 - C_6H_4)$ CH₂ (2C1-C₆H₄) $CH_2(4C1-C_6H_4)$ $CH_2(2,4C1-C_6H_3)$ СН₂ (ЗБСН₃-С6Н₄) CH₂ (30CH₃-C₆H₄) $CH_2 (3C1-C_6H_4)$ $CH_2(2,6F-C_6H_3)$ $CH_2(2,6C1-C_6H_3)$ $CH_2(3, 4F-C_6H_3)$ CH2-Si (CH3) 3 $ON=C(CH_3)_2$ ON=CH (C₆H₅) $ON=C(CH_3)C_6H_5$ $OCH_2(2,6-C1-C_6H_3)$ OCH₂ (C=CH₂) CH₃ OCH2-CH 4F-C₆H₄ 4C1-C6H4 4Br-C6H4 2-pyridyl 2-furyl 2-thiazolyl

2-imidazolyl	CH2OCH2CH3	CH2NHCH2CH2CH3
O-2 (3CF ₃ -C ₅ H ₃ N)	CH ₂ OCH ₂ CH ₂ CH ₃	$CH_2NHCH_2C(C_6H_5)$
0-2C1-6CF ₃ -C ₆ H ₃	CH ₂ OCH ₂ CH (CH ₃) ₂	CH ₂ NHCH ₂ CH (CH ₃) ₂
	CH ₂ OCH ₂ (C ₆ H ₅)	CH ₂ NHCH ₂ (3CF ₃ -C ₆ H ₄)
$R^1 = OCF_2H$, $R^2 = C(0)NH_2$	CH ₂ OCH ₂ (3CF ₃ -C ₆ H ₄)	CH ₂ NHCH ₂ (2C1-C ₆ H ₄)
R ³	CH ₂ OCH ₂ (2C1-C ₆ H ₄)	CH ₂ NH (C ₆ H ₅)
(CH ₂) ₂ CH ₃	CH2OCH2 (3SCH3-C6H4)	CH ₂ NH (2C1-C ₆ H ₄)
(CH ₂) ₃ CH ₃	CH ₂ OCH ₂ (4Cl-C ₆ H ₄)	CH ₂ N(CH ₃) (2C1-C ₆ H ₄)
(CH ₂) ₄ CH ₃	CH ₂ OCH ₂ (2, 4F-C ₆ H ₃)	осн ₂ сн ₂ сн ₃
(CH ₂) ₅ CH ₃	CH2CH2OCH2CH2CH3	OCH ₂ (CH ₂) ₂ CH ₃
(CH ₂) ₆ CH ₃	CH ₂ O (С ₆ H ₅)	осн ₂ (сн ₂) ₃ сн ₃
(CH ₂) ₇ CH ₃	CH ₂ O(3CF ₃ -C ₆ H ₄)	осн ₂ (сн ₂) ₅ сн ₃
(CH ₂) ₈ CH ₃	CH ₂ O (4CF ₃ -C ₆ H ₄)	OCH ₂ C (C ₆ H ₅)
(CH ₂) ₉ CH ₃	CH ₂ O(2C1-C ₆ H ₄)	OCH ₂ (3CF ₃ -C ₆ H ₄)
СH ₂ CH (СH ₃) ₂	CH ₂ O(3SCH ₃ -C ₆ H ₄)	OCH ₂ (2C1-C ₆ H ₄)
CH2CH2CH(CH3)2	CH ₂ O (2CH ₃ -C ₆ H ₄)	осн ₂ сн (сн ₃) ₂
CH2CH2CH2CH(CH3)2	CH ₂ O(4C1-C ₆ H ₄)	о(С ₆ н ₅)
$\mathrm{CH_2CH_2CH}$ ($\mathrm{CH_3}$) $\mathrm{CH_2CH_2CH_3}$	CH ₂ O(2,4C1-C ₆ H ₃)	O(3CF3-C6H4)
CH2CH(CH3)CH2CH2CH3	CH2SCH2CH3	O(2C1-C6H4)
CH_2CH (CH_2CH_3) CH_2CH_3	CH ₂ SCH ₂ CH ₂ CH ₃	O(4SCH3-C6H4)
CH2CH2CH2OCH2CH3	CH2SCH2CH (CH3) 2	O(2,4C1-C6H3)
CH2CH2CH2CH3	CH ₂ SCH ₂ (C ₆ H ₅)	SCH2CH2CH3
$\mathrm{CH_2CH_2CH_2}$ - S - $\mathrm{CH_2CH_3}$	CH ₂ SCH ₂ (3CF ₃ -C ₆ H ₄)	scн ₂ (сн ₂) ₂ сн ₃
CH2CH2CH2CH3	CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (CH ₂) ₃ CH ₃
CH2CH2CH2NHCH2CH3	CH ₂ S (4CH ₃ -C ₆ H ₄)	SCH ₂ (CH ₂) ₅ CH ₃
CH2CF2CH (CH3)2	CH ₂ S(2,4C1-C ₆ H ₃)	scн ₂ (с ₆ н ₅)
CH2CH2CH2CF2CH3	СH ₂ S (3SCH ₃ -С ₆ H ₄)	SCH ₂ (3SCH ₃ -C ₆ H ₄)
CH ₂ -cyclopropyl	CH ₂ S (2, 6C1-C ₆ H ₃)	SCH ₂ (20СН ₃ -С ₆ Н ₄)
CH ₂ -cyclobutyl	CH ₂ S (C ₆ H ₅)	SCH ₂ (2C1-С ₆ H ₄)
CH ₂ -cyclopentyl	CH ₂ S (3CF ₃ -C ₆ H ₄)	SCH ₂ (2,4-C ₆ H ₃)
CH ₂ -cyclohexyl	CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (4CF ₃ -C ₆ H ₄)
cyclopropyl	CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH ₃) 3
cyclobutyl	CH ₂ S (2,6C1-C ₆ H ₃)	SCH ₂ CH (CH ₃) ₂
cyclopentyl		s (C ₆ H ₅)
cyclohexyl	CH ₂ NHCH ₂ CH ₃	S(3CF ₃ -C ₆ H ₄)

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CH=CH (CH<sub>3</sub>)<sub>2</sub>
                                                 4Br-C_6H_4
 CH2CH2CH=CH2
                                                 2-pyridyl
 CH2CH=CH-CH3
                                                 2-furyl
 CH=CH-CH<sub>2</sub>CH<sub>2</sub>-Cl
                                                2-thiazolyl
 CH<sub>2</sub>CH<sub>2</sub>CH-C1CH<sub>2</sub>-C1
                                                2-imidazolyl
 C<sub>6</sub>H<sub>5</sub>
                                                O-2 (3CF<sub>3</sub>-C<sub>5</sub>H<sub>3</sub>N)
                                                0-2C1-6CF<sub>3</sub>-С<sub>6</sub>Н<sub>3</sub>
 3CF3-C6H4
 2C1-C6H4
                                                     R^1 = NO_2, R^2 = C(0) NH_2
 3CH3-C6H4
                                                \mathbb{R}^3
 30CH3-C6H4
 2CF3-C6H4
                                                 (CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>
 2,4C1-C6H3
                                                 (CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>
 2,6C1-C6H3
                                                (CH<sub>2</sub>)<sub>4</sub>CH<sub>3</sub>
 2SCH3-C6H4
                                                (CH<sub>2</sub>)<sub>5</sub>CH<sub>3</sub>
CH<sub>2</sub> (C<sub>6</sub>H<sub>5</sub>)
                                                (CH<sub>2</sub>) 6CH<sub>3</sub>
CH<sub>2</sub> (3CF<sub>3</sub>-C<sub>6</sub>H<sub>4</sub>)
                                                (CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>
CH<sub>2</sub> (2C1-C<sub>6</sub>H<sub>4</sub>)
                                                (CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>
CH_2(4C1-C_6H_4)
                                                (CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>
CH_2(2,4C1-C_6H_3)
                                                CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH2 (3SCH3-C6H4)
                                               СH<sub>2</sub>C (СH<sub>3</sub>) 3
CH_2 (30CH_3 - C_6H_4)
                                               CH<sub>2</sub>CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH_2(3C1-C_6H_4)
                                               CH2CH2CH2CH(CH3)2
CH<sub>2</sub> (2, 6F-C<sub>6</sub>H<sub>3</sub>)
                                               CH2CH2CH (CH3) CH2CH2CH3
СH<sub>2</sub> (2,6С1-С6H<sub>3</sub>)
                                               CH2CH (CH3) CH2CH2CH3
CH_2(3, 4F-C_6H_3)
                                               CH2CH (CH2CH3) CH2CH3
CH_2-Si(CH_3)<sub>3</sub>
                                               CH2CH2CH2OCH2CH3
ON=C(CH_3)_2
                                               CH2CH2CH2CH2OCH3
ON=CH(C_6H_5)
                                               CH2CH2CH2-S-CH2CH3
ON=C(CH_3)C_6H_5
                                               CH2CH2CH2CH2SCH3
OCH_2(2, 6-C1-C_6H_3)
                                               CH2CH2CH2NHCH2CH3
OCH<sub>2</sub> (C=CH<sub>2</sub>) CH<sub>3</sub>
                                               CH2CF2CH(CH3)2
OCH2-CHCH2
                                               CH2CH2CH2CF2CH3
                                               CH2-cyclopropyl
                                               CH<sub>2</sub>-cyclobutyl
4F-C_6H_4
                                               CH2-cyclopentyl
4C1-C6H4
```

CH ₂ -cyclohexyl
cyclopropyl
cyclobutyl
cyclopentyl
cyclohexyl
CH ₂ OCH ₂ CH ₃
CH ₂ OCH ₂ CH ₂ CH ₃
CH ₂ OCH ₂ CH (CH ₃) ₂
СH ₂ OСH ₂ (С ₆ H ₅)
$CH_2OCH_2 (3CF_3 - C_6H_4)$
$CH_2OCH_2(2C1-C_6H_4)$
CH_2OCH_2 (3SCH ₃ -C ₆ H ₄)
CH_2OCH_2 (4C1-C ₆ H ₄)
$CH_2OCH_2(2, 4F-C_6H_3)$
$\mathrm{CH_2CH_2OCH_2CH_2CH_3}$
$CH_2O(C_6H_5)$
$CH_2O(3CF_3-C_6H_4)$
$CH_2O(4CF_3-C_6H_4)$
$CH_2O(2C1-C_6H_4)$
$CH_{2}O(3SCH_{3}-C_{6}H_{4})$
$CH_2O(2CH_3-C_6H_4)$
$CH_2O(4C1-C_6H_4)$
$CH_2O(2,4C1-C_6H_3)$
CH ₂ SCH ₂ CH ₃
CH2SCH2CH2CH3
CH2SCH2CH (CH3) 2
CH ₂ SCH ₂ (С ₆ H ₅)
CH ₂ SCH ₂ (3CF ₃ -С ₆ H ₄)
CH ₂ S (2C1-C ₆ H ₄)
CH ₂ S (4CH ₃ -C ₆ H ₄)
CH ₂ S(2,4C1-C ₆ H ₃)
CH ₂ S (3SCH ₃ -C ₆ H ₄)
CH ₂ S(2,6C1-C ₆ H ₃)
CH ₂ S (C ₆ H ₅)
$CH_2S(3CF_3-C_6H_4)$

	33
	CH ₂ S(2C1-C ₆ H ₄)
	СH ₂ S (4CH ₃ -C ₆ H ₄)
	сн ₂ s(2,6С1-С ₆ н ₃)
	CH ₂ S(2,4C1-C ₆ H ₃)
	сн ₂ инсн ₂ сн ₃
	сн ₂ инсн ₂ сн ₂ сн ₃
	сн ₂ инсн ₂ с (с ₆ н ₅)
	сн ₂ инсн ₂ сн (сн ₃) ₂
	CH2NHCH2 (3CF3-C6H4)
	CH ₂ NHCH ₂ (2C1-С ₆ H ₄)
	CH ₂ NH (С ₆ H ₅)
	CH ₂ NH (2C1-C ₆ H ₄)
İ	$CH_2N(CH_3)(2C1-C_6H_4)$
	осн ₂ сн ₂ сн ₃
	осн ₂ (сн ₂) ₂ сн ₃
	осн ₂ (сн ₂) ₃ сн ₃
I	осн ₂ (сн ₂) ₅ сн ₃
I	OCH ₂ C(C ₆ H ₅)
Ì	OCH ₂ CH ₂ CH (CH ₃) ₂
	OCH ₂ -Si(CH ₃) ₃
l	OCH ₂ CH 1
	OCH ₂ CH ₂ CH ₂
ŀ	OCH ₂ (3CF ₃ -C ₆ H ₄)
ł	OCH ₂ (2C1-C ₆ H ₄)
ŀ	OCH ₂ CH (CH ₃) ₂
ŀ	O(C ₆ H ₅)
ŀ	O(3CF ₃ -C ₆ H ₄)
ŀ	O(2C1-C ₆ H ₄)
ŀ	O(4SCH ₃ -C ₆ H ₄) O(2,4C1-C ₆ H ₃)
ŀ	O(2,4C1-C ₆ H ₃)
	SCH ₂ CH ₂ CH ₃
:	SCH ₂ (CH ₂) ₂ CH ₃
١	SCH ₂ (CH ₂) ₃ CH ₃
1	SCH ₂ (CH ₂) ₅ CH ₃

SCH₂ (C₆H₅) SCH2 (3SCH3-C6H4) SCH₂ (2ОСН₃-С₆Н₄) SCH₂ (2C1-C₆H₄) SCH₂ (2,4-C₆H₃) SCH₂ (4CF₃-C₆H₄) S (CH3) 3 SCH2CH(CH3)2 S(C6H5) S(3CF3-C6H4) S(2C1-C6H4) S (40CH3-C6H4) S(2,4C1-C6H3) S(2,6F-C6H3) 2 (3CH3-C6H4) NHCH2CH2CH3 инсн₂ (сн₂) ₂сн₃ NHCH₂ (CH₂) ₄CH₃ NHCH₂ (CH₂) ₅CH₃ NHCH2CH (CH3) 2 NHCH₂ (C₆H₅) NHCH₂ (3CF₃-C₆H₄) NHCH₂ (2C1-C₆H₄) NHCH₂ (4CH₃-C₆H₄) NHCH₂ (2, 4C1-C₆H₃) инсн₂ (2, 6С1-С₆н₃) NH (C₆H₅) NH (3CF3-C6H4) NH (2C1-C₆H₄) NH (3CH3-C6H4) NH(2,4C1-C6H3) NH(2,6C1-C6H3) $N(CH_3)(3CF_3-C_6H_4)$ N(CH3)CH2CH2CH3

N (CH₂) 4

N(CH₂)₅N(CH₂)6 $N(CH_2CH_2-OCH_2CH_2)_2$ CH₂CO₂CH₃ CH2CH2CO2CH2CH3 CH2CH2CO2CH3 CH2CH2OCH2CH3 CH2CH2SCH2CH3 CH2CH2-NHCH2CH3 CH2CH2N (CH3) CH2CH3 CH=CH (CH₃)₂ CH2CH2CH=CH2 CH2CH=CH-CH3 CH=CH-CH₂CH₂-Cl CH2CH2CH-C1CH2-C1 C₆H₅ 3CF3-C6H4 2C1-C6H4 3CH3-C6H4 30CH3-C6H4 2CF3-C6H4 2,4C1-C6H3 $2,6C1-C_6H_3$ 2SCH3-C6H4 $CH_2(C_6H_5)$ $CH_2 (3CF_3 - C_6H_4)$ CH2 (2C1-C6H4) $CH_2 (4C1-C_6H_4)$ $CH_2(2, 4C1-C_6H_3)$ CH_2 (3SCH₃-C₆H₄) CH_2 (30 CH_3 - C_6H_4) $CH_2 (3C1-C_6H_4)$ $CH_2(2,6F-C_6H_3)$ $CH_2(2,6C1-C_6H_3)$

 $CH_2(3, 4F-C_6H_3)$

CH2-Si(CH3)3 $ON=C(CH_3)_2$ $ON=CH(C_6H_5)$ $ON=C(CH_3)C_6H_5$ OCH₂ (2, 6-C1-C₆H₃) OCH2 (C=CH2) CH3 осн₂-сн 4F-C6H4 4C1-C6H4 4Br-C6H4 2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl O-2 (3CF₃-C₅H₃N) 0-2C1-6CF3-C6H3 $R^1=C1$, $R^2=C=N$ _R3 (CH₂)₂CH₃ (CH₂)₃CH₃ (CH₂)₄CH₃ (CH₂)₅CH₃ (CH₂) 6CH₃ (CH₂)₇CH₃ (CH₂)₈CH₃ $(CH_2)_9CH_3$ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2CH2CH2CH(CH3)2 CH2CH2CH (CH3) CH2CH2CH3 CH₂CH (CH₃) CH₂CH₂CH₃ CH2CH (CH2CH3) CH2CH3 CH2CH2CH2OCH2CH3

CH2CH2CH2CH2OCH3 CH2CH2CH2-S-CH2CH3 CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH(CH3)2 CH2CH2CH2CF2CH3 CH2-cyclopropyl CH2-cyclobutyl CH2-cyclopentyl CH2-cyclohexyl cyclopropyl cyclobutyl cyclopentyl cyclohexyl CH2OCH2CH3 CH2OCH2CH2CH3 CH2OCH2CH (CH3) 2 $CH_2OCH_2(C_6H_5)$ CH_2OCH_2 (3 $CF_3-C_6H_4$) $CH_2OCH_2 (2C1-C_6H_4)$ CH_2OCH_2 (3SCH₃-C₆H₄) CH_2OCH_2 (4C1-C₆H₄) CH_2OCH_2 (2, 4F-C₆H₃) CH2CH2OCH2CH2CH3 СH₂O (С₆H₅) $CH_2O(3CF_3-C_6H_4)$ $CH_2O(4CF_3-C_6H_4)$ CH₂O (2C1-C₆H₄) $CH_2O(3SCH_3-C_6H_4)$ $CH_2O(2CH_3-C_6H_4)$ $CH_2O(4C1-C_6H_4)$ CH₂O(2,4C1-C₆H₃) CH2SCH2CH3 CH2SCH2CH2CH3 CH2SCH2CH(CH3)2

CH ₂ SCH ₂ (C ₆ H ₅)	SCH ₂ CH ₂ CH ₃	NH(2,6C1-C ₆ H ₃)
CH_2SCH_2 (3CF ₃ -C ₆ H ₄)	SCH ₂ (CH ₂) ₂ CH ₃	$N(CH_3)(3CF_3-C_6H_4)$
$CH_2S(2C1-C_6H_4)$	SCH ₂ (CH ₂) ₃ CH ₃	N(CH3)CH2CH2CH3
$CH_2S(4CH_3-C_6H_4)$	SCH ₂ (CH ₂) ₅ CH ₃	N (CH ₂) ₄
$CH_2S(2,4C1-C_6H_3)$	SCH ₂ (C ₆ H ₅)	N (CH ₂) 5
CH ₂ S (3SCH ₃ -C ₆ H ₄)	SCH ₂ (3SCH ₃ -C ₆ H ₄)	N (CH ₂) 6
CH ₂ S(2,6C1-C ₆ H ₃)	SCH ₂ (20CH ₃ -C ₆ H ₄)	N (CH ₂ CH ₂ -OCH ₂ CH ₂) ₂
CH ₂ S (C ₆ H ₅)	SCH ₂ (2C1-C ₆ H ₄)	сн ₂ со ₂ сн ₃
CH ₂ S (3CF ₃ -C ₆ H ₄)	SCH ₂ (2, 4-C ₆ H ₃)	сн ₂ сн ₂ со ₂ сн ₂ сн ₃
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (4CF ₃ -C ₆ H ₄)	сн ₂ сн ₂ со ₂ сн ₃
CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH ₃) 3	CH ₂ CH ₂ OCH ₂ CH ₃
CH ₂ S(2,6C1-C ₆ H ₃)	SCH2CH(CH3)2	CH ₂ CH ₂ SCH ₂ CH ₃
$CH_2S(2,4C1-C_6H_3)$	S (C ₆ H ₅)	CH2CH2-NHCH2CH3
CH2NHCH2CH3	S(3CF3-C6H4)	CH ₂ CH ₂ N (CH ₃) CH ₂ CH ₃
CH2NHCH2CH2CH3	S (2C1-C ₆ H ₄)	CH=CH (CH ₃) ₂
$CH_2NHCH_2C(C_6H_5)$	S (40CH3-C6H4)	CH2CH2CH=CH2
CH2NHCH2CH (CH3)2	S(2,4C1-C ₆ H ₃)	сн ₂ сн=сн-сн ₃
CH_2NHCH_2 (3CF ₃ - C_6H_4)	S(2,6F-C ₆ H ₃)	CH=CH-CH ₂ CH ₂ -Cl
CH2NHCH2 (2C1-C6H4)	2 (3CH ₃ -C ₆ H ₄)	CH2CH2CH-C1CH2-C1
CH ₂ NH (C ₆ H ₅)	NHCH2CH2CH3	C ₆ H ₅
CH2NH (2C1-C6H4)	NHCH ₂ (CH ₂) ₂ CH ₃	3CF3-C6H4
$CH_2N(CH_3)(2C1-C_6H_4)$	NHCH ₂ (CH ₂) ₄ CH ₃	2C1-C6H4
осн ₂ сн ₂ сн ₃	NHCH ₂ (CH ₂) ₅ CH ₃	3CH3-C6H4
OCH ₂ (CH ₂) ₂ CH ₃	NHCH ₂ CH (CH ₃) ₂	зосн ₃ -с ₆ н ₄
осн ₂ (сн ₂) ₃ сн ₃	инсн ₂ (с ₆ н ₅)	2CF3-C6H4
осн ₂ (сн ₂) ₅ сн ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)	2,4C1-C ₆ H ₃
OCH ₂ C(C ₆ H ₅)	NHCH ₂ (2C1-C ₆ H ₄)	2,6C1-C6H3
$OCH_2(3CF_3-C_6H_4)$	NHCH ₂ (4CH ₃ -C ₆ H ₄)	2SCH3-C6H4
$OCH_2(2C1-C_6H_4)$	NHCH ₂ (2, 4Cl-C ₆ H ₃)	CH ₂ (C ₆ H ₅)
OCH ₂ CH (CH ₃) ₂	NHCH ₂ (2,6C1-C ₆ H ₃)	CH ₂ (3CF ₃ -C ₆ H ₄)
O(C ₆ H ₅)	NH (C ₆ H ₅)	CH ₂ (2C1-C ₆ H ₄)
O(3CF3-C6H4)	NH (3CF ₃ -C ₆ H ₄)	CH ₂ (4C1-C ₆ H ₄)
O(2C1-C6H4)	NH (2C1-C ₆ H ₄)	CH ₂ (2,4C1-C ₆ H ₃)
O(4SCH3-C6H4)	NH (3CH ₃ -C ₆ H ₄)	CH ₂ (3SCH ₃ -C ₆ H ₄)
O(2,4C1-C6H3)	NH(2,4C1-C ₆ H ₃)	СH ₂ (ЗОСН ₃ -С ₆ Н ₄)
	4	

 CH_2 (3C1-C₆H₄) CH_2 (2, 6F-C₆H₃) CH_2 (2, 6C1-C₆H₃) CH_2 (3, 4F-C₆H₃) CH_2 -Si (CH₃) 3 ON=C (CH₃) 2 ON=CH (C₆H₅) ON=C (CH₃) C₆H₅ OCH_2 (2, 6-C1-C₆H₃) OCH_2 (C=CH₂) CH₃ OCH_2 -CH CH_2 CH_2 CH_2 CH_2 CH_2 CH_2 CH_2

4C1-C₆H₄

4Br-C₆H₄

2-pyridyl

2-furyl

2-thiazolyl

2-imidazolyl

0-2(3CF₃-C₅H₃N)

0-2C1-6CF₃-C₆H₃

$R^1=Br$, $R^2=C=N$

R³
(CH₂)₂CH₃
(CH₂)₃CH₃
(CH₂)₄CH₃
(CH₂)₅CH₃
(CH₂)₆CH₃
(CH₂)₇CH₃
(CH₂)₈CH₃
(CH₂)₉CH₃
CH₂CH₂CH₂CH₂CH₂CH₃)₂
CH₂CH₂CH₂CH₂CH₃CH₃)₂

CH2CH2CH(CH3)CH2CH2CH3 CH2CH (CH3) CH2CH2CH3 CH2CH (CH2CH3) CH2CH3 CH2CH2CH2OCH2CH3 CH2CH2CH2CH2OCH3 CH2CH2CH2-S-CH2CH3 CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH(CH3)2 CH2CH2CH2CF2CH3 CH2-cyclopropyl CH₂-cyclobutyl CH2-cyclopentyl CH2-cyclohexyl cyclopropyl cyclobutyl cyclopentyl cyclohexyl CH2OCH2CH3 CH2OCH2CH2CH3 CH2OCH2CH (CH3) 2 $CH_2OCH_2(C_6H_5)$ CH_2OCH_2 (3CF₃-C₆H₄) $CH_2OCH_2 (2C1-C_6H_4)$ CH_2OCH_2 (3SCH₃-C₆H₄) CH_2OCH_2 (4C1- C_6H_4) $CH_2OCH_2(2, 4F-C_6H_3)$ CH2CH2OCH2CH2CH3 CH₂O(C₆H₅) $CH_2O(3CF_3-C_6H_4)$ CH2O (4CF3-C6H4) $CH_2O(2C1-C_6H_4)$ CH20 (3SCH3-C6H4) $CH_2O(2CH_3-C_6H_4)$

CH2O (4C1-C6H4)

CH₂O(2,4Cl-C₆H₃) CH2SCH2CH3 CH2SCH2CH2CH3 CH2SCH2CH (CH3) 2 CH2SCH2 (C6H5) CH_2SCH_2 (3CF₃-C₆H₄) CH2S (2C1-C6H4) $CH_2S(4CH_3-C_6H_4)$ $CH_2S(2, 4C1-C_6H_3)$ $CH_2S(3SCH_3-C_6H_4)$ $CH_2S(2,6C1-C_6H_3)$ CH₂S (C₆H₅) $CH_2S(3CF_3-C_6H_4)$ $CH_2S(2C1-C_6H_4)$ CH2S (4CH3-C6H4) CH₂S (2,6Cl-C₆H₃) $CH_2S(2,4C1-C_6H_3)$ CH2NHCH2CH3 CH2NHCH2CH2CH3 CH2NHCH2C(C6H5) CH2NHCH2CH (CH3) 2 $CH_2NHCH_2(3CF_3-C_6H_4)$ $CH_2NHCH_2(2C1-C_6H_4)$ $CH_2NH(C_6H_5)$ $CH_2NH(2C1-C_6H_4)$ $CH_2N(CH_3)(2C1-C_6H_4)$ OCH2CH2CH3 OCH₂ (CH₂) ₂CH₃ OCH₂ (CH₂) ₃CH₃ OCH₂ (CH₂) 5CH₃ OCH₂C (C₆H₅) $OCH_2 (3CF_3 - C_6H_4)$ OCH₂ (2C1-C₆H₄) OCH₂CH (CH₃)₂ O(C₆H₅)

	•	
$O(3CF_3-C_6H_4)$	NH (3CF ₃ -C ₆ H ₄)	CH ₂ (4Cl-C ₆ H ₄)
$O(2C1-C_6H_4)$	NH (2C1-C ₆ H ₄)	CH ₂ (2,4C1-C ₆ H ₃)
$O(4SCH_3-C_6H_4)$	NH (3CH ₃ -C ₆ H ₄)	CH ₂ (3SCH ₃ -C ₆ H ₄)
$O(2,4C1-C_6H_3)$	$NH(2,4C1-C_6H_3)$	CH ₂ (30CH ₃ -C ₆ H ₄)
SCH ₂ CH ₂ CH ₃	NH(2,6C1-C ₆ H ₃)	CH ₂ (3C1-C ₆ H ₄)
SCH ₂ (CH ₂) ₂ CH ₃	$N(CH_3)(3CF_3-C_6H_4)$	CH ₂ (2, 6F-C ₆ H ₃)
SCH ₂ (CH ₂) 3CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃	CH ₂ (2,6C1-C ₆ H ₃)
SCH ₂ (CH ₂) ₅ CH ₃	N(CH ₂) ₄	CH ₂ (3, 4F-C ₆ H ₃)
SCH ₂ (C ₆ H ₅)	N(CH ₂) ₅	CH ₂ -Si(CH ₃) ₃
SCH ₂ (3SCH ₃ -C ₆ H ₄)	N(CH ₂) ₆	ON=C (CH ₃) ₂
SCH ₂ (20CH ₃ -C ₆ H ₄)	N(CH2CH2-OCH2CH2)2	ON=CH (C ₆ H ₅)
$SCH_2(2C1-C_6H_4)$	CH ₂ CO ₂ CH ₃	ON=C (CH ₃) C ₆ H ₅
$SCH_2(2, 4-C_6H_3)$	CH ₂ CH ₂ CO ₂ CH ₂ CH ₃	OCH ₂ (2, 6-C1-C ₆ H ₃)
$SCH_2(4CF_3-C_6H_4)$	CH ₂ CH ₂ CO ₂ CH ₃	OCH ₂ (C=CH ₂) CH ₃
S (CH ₃) 3	CH2CH2OCH2CH3	CH ₂
SCH ₂ CH (CH ₃) ₂	СH ₂ CH ₂ SCH ₂ CH ₃	OCH ₂ -CH CH ₂
S(C ₆ H ₅)	CH2CH2-NHCH2CH3	4F-C ₆ H ₄
$S(3CF_3-C_6H_4)$	CH2CH2N (CH3) CH2CH3	4C1-C6H4
S(2C1-C ₆ H ₄)	CH=CH (CH ₃) ₂	4Br-C ₆ H ₄
S(40CH3-C6H4)	CH ₂ CH ₂ CH=CH ₂	2-pyridyl
$S(2,4C1-C_6H_3)$	CH ₂ CH=CH-CH ₃	2-furyl
$S(2,6F-C_6H_3)$	CH=CH-CH ₂ CH ₂ -Cl	2-thiazolyl
2(3CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH-C1CH ₂ -C1	2-imidazolyl
NHCH2CH2CH3	C ₆ H ₅	O-2 (3CF ₃ -C ₅ H ₃ N)
NHCH ₂ (CH ₂) ₂ CH ₃	3CF ₃ -C ₆ H ₄	0-2C1-6CF ₃ -C ₆ H ₃
NHCH ₂ (CH ₂) ₄ CH ₃	2C1-C6H4	
NHCH ₂ (CH ₂) ₅ CH ₃	3CH3-C6H4	$R^1=I$, $R^2=C\equiv N$
NHCH ₂ CH (CH ₃) ₂	30CH ₃ -C ₆ H ₄	R3
NHCH ₂ (C ₆ H ₅)	2CF ₃ -C ₆ H ₄	(CH ₂) ₂ CH ₃
$\mathrm{NHCH}_{2}\left(\mathrm{3CF}_{3}\mathrm{-C}_{6}\mathrm{H}_{4}\right)$	2,4C1-C ₆ H ₃	(CH ₂) ₃ CH ₃
$\mathrm{NHCH}_2\left(2\mathrm{Cl-C}_6\mathrm{H}_4\right)$	2,6C1-C ₆ H ₃	(CH ₂) ₄ CH ₃
$NHCH_2$ (4 CH_3 - C_6H_4)	2SCH3-C6H4	(CH ₂) ₅ CH ₃
$NHCH_2(2,4C1-C_6H_3)$	СH ₂ (С ₆ H ₅)	(CH ₂) ₆ CH ₃
$NHCH_2(2,6C1-C_6H_3)$	CH ₂ (3CF ₃ -C ₆ H ₄)	(CH ₂) ₇ CH ₃
NH (C ₆ H ₅)	CH ₂ (2C1-C ₆ H ₄)	(CH ₂) ₈ CH ₃
		·

(CH ₂) ₉ CH ₃
CH ₂ CH (CH ₃) ₂
$\mathrm{CH_2CH_2CH}$ ($\mathrm{CH_3}$) 2
$\mathrm{CH_2CH_2CH_2CH}$ ($\mathrm{CH_3}$) 2
$CH_2CH_2CH(CH_3)CH_2CH_2CH_3$
CH2CH (CH3) CH2CH2CH3
$\mathrm{CH_2CH}(\mathrm{CH_2CH_3})\mathrm{CH_2CH_3}$
CH2CH2CH2OCH2CH3
CH2CH2CH2CH3
CH2CH2CH2-S-CH2CH3
сн ₂ сн ₂ сн ₂ сн ₂ sсн ₃
CH2CH2CH2NHCH2CH3
CH2CF2CH(CH3)2
CH2CH2CH2CF2CH3
CH ₂ -cyclopropyl
CH ₂ -cyclobutyl
CH2-cyclopentyl
CH2-cyclohexyl
cyclopropyl
cyclobutyl
cyclopentyl
cyclohexyl
CH2OCH2CH3
CH2OCH2CH2CH3
CH2OCH2CH (CH3)2
CH ₂ OCH ₂ (C ₆ H ₅)
$CH_2OCH_2 (3CF_3-C_6H_4)$
CH_2OCH_2 (2C1- C_6H_4)
CH_2OCH_2 (3SCH ₃ -C ₆ H ₄)
CH_2OCH_2 (4C1-C ₆ H ₄)
CH_2OCH_2 (2, 4F-C ₆ H ₃)
CH2CH2OCH2CH2CH3
CH ₂ O(C ₆ H ₅)
$CH_2O(3CF_3-C_6H_4)$
$CH_2O(4CF_3-C_6H_4)$

CH ₂ O(2Cl-C ₆ H ₄)
CH ₂ O(3SCH ₃ -C ₆ H ₄)
CH ₂ O(2CH ₃ -C ₆ H ₄)
CH ₂ O(4C1-C ₆ H ₄)
CH ₂ O(2,4C1-C ₆ H ₃)
Сн ₂ sсн ₂ сн ₃
CH ₂ SCH ₂ CH ₂ CH ₃
CH ₂ SCH ₂ CH (CH ₃) 2
CH ₂ SCH ₂ (C ₆ H ₅)
CH ₂ SCH ₂ (3CF ₃ -C ₆ H ₄)
CH ₂ S (2C1-С ₆ H ₄)
CH ₂ S (4CH ₃ -C ₆ H ₄)
CH ₂ S(2,4Cl-C ₆ H ₃)
CH ₂ S (3SCH ₃ -C ₆ H ₄)
CH ₂ S(2,6Cl-C ₆ H ₃)
СH ₂ S (С ₆ H ₅)
CH ₂ S (3CF ₃ -C ₆ H ₄)
CH ₂ S (2C1-C ₆ H ₄)
CH ₂ S (4CH ₃ -C ₆ H ₄)
CH ₂ S(2,6C1-C ₆ H ₃)
CH ₂ S (2,4C1-C ₆ H ₃)
CH ₂ NHCH ₂ CH ₃
CH ₂ NHCH ₂ CH ₂ CH ₃
CH ₂ NHCH ₂ C (C ₆ H ₅)
CH ₂ NHCH ₂ CH (CH ₃) ₂
CH ₂ NHCH ₂ (3CF ₃ -C ₆ H ₄)
CH ₂ NHCH ₂ (2C1-C ₆ H ₄)
CH ₂ NH (C ₆ H ₅)
CH ₂ NH (2C1-C ₆ H ₄)
$CH_2N(CH_3)(2C1-C_6H_4)$
осн ₂ сн ₂ сн ₃
OCH ₂ (CH ₂) ₂ CH ₃
осн ₂ (сн ₂) ₃ сн ₃
осн ₂ (сн ₂) ₅ сн ₃
осн ₂ с (с ₆ н ₅)

OCH₂ (3CF₃-C₆H₄) OCH₂ (2C1-C₆H₄) OCH₂CH (CH₃)₂ O(C6H5) O(3CF3-C6H4) O(2C1-C6H4) O(4SCH3-C6H4) O(2,4C1-C6H3) SCH2CH2CH3 SCH₂ (CH₂) ₂CH₃ SCH₂ (CH₂) 3CH₃ SCH₂ (CH₂) ₅CH₃ SCH₂ (C₆H₅) SCH2 (3SCH3-C6H4) SCH₂ (20CH₃-C₆H₄) SCH2 (2C1-C6H4) SCH₂ (2, 4-C₆H₃) SCH2 (4CF3-C6H4) S (CH₃) 3 SCH2CH(CH3)2 S (C6H5) $S(3CF_3-C_6H_4)$ S (2C1-C6H4) S (40CH3-C6H4) s(2,4C1-C6H3) S(2,6F-C6H3) 2 (3CH3-C6H4) NHCH2CH2CH3 NHCH₂ (CH₂) ₂CH₃ NHCH2 (CH2) 4CH3 NHCH₂ (CH₂) ₅CH₃ NHCH2CH (CH3) 2 NHCH₂ (C₆H₅) NHCH₂ (3CF₃-C₆H₄) NHCH₂ (2C1-C₆H₄)

NHCH₂ (4CH₃-C₆H₄) $NHCH_2$ (2, $4C1-C_6H_3$) $NHCH_2(2,6C1-C_6H_3)$ NH (C₆H₅) $NH (3CF_3 - C_6H_4)$ NH (2C1-C6H4) $NH (3CH_3 - C_6H_4)$ $NH(2,4C1-C_6H_3)$ $NH(2,6C1-C_6H_3)$ $N(CH_3)(3CF_3-C_6H_4)$ N (CH3) CH2CH2CH3 N (CH2) 4 N (CH₂)₅ N (CH2) 6 N(CH2CH2-OCH2CH2)2 CH2CO2CH3 CH2CH2CO2CH2CH3 CH2CH2CO2CH3 CH2CH2OCH2CH3 CH2CH2SCH2CH3 CH2CH2-NHCH2CH3 CH2CH2N (CH3) CH2CH3 CH=CH (CH₃)₂ CH2CH2CH=CH2 CH2CH=CH-CH3 CH=CH-CH₂CH₂-C1 CH2CH2CH-C1CH2-C1 C6H5 3CF3-C6H4 2C1-C6H4 3CH3-C6H4 30CH3-C6H4 2CF3-C6H4 2,4C1-C6H3

2,6C1-C6H3

2SCH3-C6H4 CH₂ (C₆H₅) $CH_2 (3CF_3 - C_6H_4)$ $CH_2(2C1-C_6H_4)$ CH₂ (4C1-C₆H₄) $CH_2(2, 4C1-C_6H_3)$ СН₂ (3SCH₃-С₆Н₄) CH₂ (30CH₃-C₆H₄) CH_2 (3C1- C_6H_4) $CH_2(2, 6F-C_6H_3)$ $CH_2(2,6C1-C_6H_3)$ $CH_2(3, 4F-C_6H_3)$ CH_2 -Si(CH_3)₃ $ON=C(CH_3)_2$ ON=CH (C6H5) $ON=C(CH_3)C_6H_5$ $OCH_2(2, 6-C1-C_6H_3)$ OCH2 (C=CH2) CH3 4F-C6H4 4C1-C6H4 4Br-C6H4 2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl $0-2 (3CF_3-C_5H_3N)$ 0-2C1-6CF₃-С₆H₃ R^1 =OCH₃, R^2 =C=N \mathbb{R}^3 (CH₂)₂CH₃ (CH₂) 3CH₃ (CH₂)₄CH₃

(CH₂)₅CH₃ (CH₂) 6CH₃ (CH₂)₇CH₃ (CH2) gCH3 (CH₂) ₉CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2CH2CH2CH(CH3)2 $\mathrm{CH}_2\mathrm{CH}_2\mathrm{CH}$ (CH_3) $\mathrm{CH}_2\mathrm{CH}_2\mathrm{CH}_3$ сн₂сн (сн₃) сн₂сн₂сн₃ CH2CH (CH2CH3) CH2CH3 CH2CH2CH2OCH2CH3 CH2CH2CH2CH2OCH3 CH2CH2CH2-S-CH2CH3 CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH (CH3) 2 CH2CH2CH2CF2CH3 CH₂-cyclopropyl CH2-cyclobutyl CH2-cyclopentyl CH2-cyclohexyl cyclopropyl cyclobutyl cyclopentyl cyclohexyl CH2OCH2CH3 CH2OCH2CH2CH3 CH2OCH2CH (CH3) 2 CH2OCH2 (C6H5) CH_2OCH_2 (3CF₃-C₆H₄) $CH_2OCH_2(2C1-C_6H_4)$ CH_2OCH_2 (3SCH₃-C₆H₄) CH_2OCH_2 (4C1-C₆H₄) CH₂OCH₂ (2, 4F-C₆H₃)

CH2CH2OCH2CH2CH3	OCH ₂ (CH ₂) ₂ CH ₃	NHCH ₂ CH (CH ₃) ₂
CH ₂ O (C ₆ H ₅)	OCH ₂ (CH ₂) ₃ CH ₃	NHCH ₂ (C ₆ H ₅)
CH ₂ O (3CF ₃ -C ₆ H ₄)	OCH ₂ (CH ₂) ₅ CH ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)
CH ₂ O (4CF ₃ -C ₆ H ₄)	OCH ₂ C (C ₆ H ₅)	NHCH ₂ (2C1-C ₆ H ₄)
$CH_2O(2C1-C_6H_4)$	OCH ₂ (3CF ₃ -C ₆ H ₄)	NHCH ₂ (4CH ₃ -C ₆ H ₄)
CH ₂ O (3SCH ₃ -C ₆ H ₄)	OCH ₂ (2C1-C ₆ H ₄)	NHCH ₂ (2, 4C1-C ₆ H ₃)
CH ₂ O (2CH ₃ -C ₆ H ₄)	осн ₂ сн (сн ₃) ₂	NHCH ₂ (2,6C1-C ₆ H ₃)
CH ₂ O(4C1-C ₆ H ₄)	O(C ₆ H ₅)	NH (C ₆ H ₅)
$CH_2O(2,4C1-C_6H_3)$	O(3CF3-C6H4)	NH (3CF ₃ -C ₆ H ₄)
CH ₂ SCH ₂ CH ₃	O(2C1-C ₆ H ₄)	NH (2C1-C ₆ H ₄)
CH ₂ SCH ₂ CH ₂ CH ₃	O(4SCH3-C6H4)	NH (3CH ₃ -C ₆ H ₄)
CH ₂ SCH ₂ CH (CH ₃) 2	O(2,4C1-C ₆ H ₃)	NH (2, 4C1-C ₆ H ₃)
CH ₂ SCH ₂ (C ₆ H ₅)	SCH ₂ CH ₂ CH ₃	NH (2, 6C1-C ₆ H ₃)
CH ₂ SCH ₂ (3CF ₃ -C ₆ H ₄)	SCH ₂ (CH ₂) ₂ CH ₃	N(CH ₃) (3CF ₃ -C ₆ H ₄)
$CH_2S(2C1-C_6H_4)$	SCH ₂ (CH ₂) ₃ CH ₃	N (CH ₃) CH ₂ CH ₂ CH ₃
CH ₂ S (4CH ₃ -C ₆ H ₄)	SCH ₂ (CH ₂) ₅ CH ₃	N (CH ₂) 4
CH ₂ S (2, 4C1-C ₆ H ₃)	SCH ₂ (C ₆ H ₅)	N (CH ₂) ₅
CH ₂ S (3SCH ₃ -C ₆ H ₄)	SCH ₂ (3SCH ₃ -C ₆ H ₄)	N(CH ₂) ₆
CH ₂ S (2,6C1-C ₆ H ₃)	SCH ₂ (20CH ₃ -C ₆ H ₄)	N (CH ₂ CH ₂ -OCH ₂ CH ₂) ₂
CH ₂ S (C ₆ H ₅)	SCH ₂ (2C1-C ₆ H ₄)	CH ₂ CO ₂ CH ₃
CH ₂ S (3CF ₃ -C ₆ H ₄)	SCH ₂ (2, 4-C ₆ H ₃)	CH2CH2CO2CH2CH3
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (4CF ₃ -C ₆ H ₄)	CH2CH2CO2CH3
CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH ₃) 3	CH2CH2OCH2CH3
CH ₂ S (2,6C1-C ₆ H ₃)	SCH2CH(CH3)2	сн ₂ сн ₂ scн ₂ сн ₃
CH ₂ S(2,4C1-C ₆ H ₃)	s (C ₆ H ₅)	сн ₂ сн ₂ -инсн ₂ сн ₃
CH2NHCH2CH3	S (3CF ₃ -C ₆ H ₄)	CH2CH2N (CH3) CH2CH3
CH2NHCH2CH2CH3	s (2C1-C ₆ H ₄)	Сн=Сн (Сн3) 2
CH ₂ NHCH ₂ C(C ₆ H ₅)	S (40CH3-C6H4)	CH ₂ CH ₂ CH=CH ₂
CH2NHCH2CH (CH3)2	S(2,4C1-C ₆ H ₃)	CH ₂ CH=CH-CH ₃
CH_2NHCH_2 (3CF ₃ -C ₆ H ₄)	S(2,6F-C ₆ H ₃)	CH=CH-CH ₂ CH ₂ -C1
CH_2NHCH_2 (2Cl- C_6H_4)	2 (3CH ₃ -C ₆ H ₄)	CH2CH2CH-C1CH2-C1
CH ₂ NH (C ₆ H ₅)	NHCH ₂ CH ₂ CH ₃	С ₆ н ₅
$CH_2NH(2C1-C_6H_4)$	NHCH ₂ (CH ₂) ₂ CH ₃	3CF3-C6H4
$CH_2N(CH_3)(2C1-C_6H_4)$	NHCH ₂ (CH ₂) ₄ CH ₃	2C1-C6H4
OCH ₂ CH ₂ CH ₃	NHCH ₂ (CH ₂) ₅ CH ₃	3CH3-C6H4

30CH ₃ -C ₆ H ₄	$R^1=OCF_3$, $R^2=C=N$	CH2OCH2 (3CF3-C6H4)
2CF ₃ -C ₆ H ₄	R ³	CH ₂ OCH ₂ (2C1-C ₆ H ₄)
2,4C1-C ₆ H ₃	(CH ₂) ₂ CH ₃	CH2OCH2 (3SCH3-C6H4)
2,6C1-C6H3	(CH ₂) ₃ CH ₃	CH ₂ OCH ₂ (4C1-C ₆ H ₄)
2SCH3-C6H4	(CH ₂) ₄ CH ₃	CH ₂ OCH ₂ (2, 4F-C ₆ H ₃)
CH ₂ (C ₆ H ₅)	(CH ₂) ₅ CH ₃	CH2CH2OCH2CH2CH3
$CH_2(3CF_3-C_6H_4)$	(CH ₂) ₆ CH ₃	СH ₂ O (С ₆ H ₅)
$CH_2(2C1-C_6H_4)$	(CH ₂) ₇ CH ₃	CH ₂ O(3CF ₃ -C ₆ H ₄)
$CH_2(4C1-C_6H_4)$	(CH ₂) ₈ CH ₃	CH ₂ O(4CF ₃ -C ₆ H ₄)
$CH_2(2,4C1-C_6H_3)$	(CH ₂) ₉ CH ₃	CH ₂ O(2C1-C ₆ H ₄)
CH ₂ (3SCH ₃ -C ₆ H ₄)	СH ₂ CH (СH ₃) ₂	СH ₂ O (3SCH ₃ -C ₆ H ₄)
CH ₂ (30CH ₃ -C ₆ H ₄)	СH ₂ CH ₂ CH (СH ₃) ₂	CH ₂ O (2CH ₃ -C ₆ H ₄)
CH ₂ (3C1-C ₆ H ₄)	СH ₂ CH ₂ CH ₂ CH (CH ₃) ₂	CH ₂ O(4C1-C ₆ H ₄)
$CH_2(2,6F-C_6H_3)$	CH ₂ CH ₂ CH (CH ₃) CH ₂ CH ₂ CH ₃	CH ₂ O(2,4C1-C ₆ H ₃)
CH ₂ (2,6C1-C ₆ H ₃)	сн ₂ сн (сн ₃) сн ₂ сн ₂ сн ₃	CH ₂ SCH ₂ CH ₃
CH ₂ (3, 4F-C ₆ H ₃)	CH2CH (CH2CH3) CH2CH3	CH2SCH2CH2CH3
CH_2 -Si(CH_3) ₃	CH2CH2CH2OCH2CH3	СH ₂ SCH ₂ CH (СH ₃) 2
ON=C (CH_3) ₂	CH2CH2CH2CH3	сн ₂ sсн ₂ (с ₆ н ₅)
ON=CH (C ₆ H ₅)	CH2CH2CH2-S-CH2CH3	CH ₂ SCH ₂ (3CF ₃ -C ₆ H ₄)
$ON=C(CH_3)C_6H_5$	CH2CH2CH2CH3	CH ₂ S (2C1-C ₆ H ₄)
$OCH_2(2,6-C1-C_6H_3)$	CH2CH2CH2NHCH2CH3	CH ₂ S (4CH ₃ -C ₆ H ₄)
OCH ₂ (C=CH ₂) CH ₃	CH2CF2CH(CH3)2	CH ₂ S(2,4C1-C ₆ H ₃)
OCH ₂ -CH CH ₂	CH2CH2CH2CF2CH3	CH ₂ S (3SCH ₃ -C ₆ H ₄)
CH ₂	CH ₂ -cyclopropyl	CH ₂ S(2,6C1-C ₆ H ₃)
4F-C ₆ H ₄	CH ₂ -cyclobutyl	СH ₂ S (С ₆ H ₅)
4C1-C ₆ H ₄	CH ₂ -cyclopentyl	CH ₂ S (3CF ₃ -C ₆ H ₄)
4Br-C ₆ H ₄	CH ₂ -cyclohexyl	CH ₂ S (2C1-C ₆ H ₄)
2-pyridyl	cyclopropyl	CH ₂ S (4CH ₃ -C ₆ H ₄)
2-furyl	cyclobutyl	CH ₂ S(2,6C1-С ₆ H ₃)
2-thiazolyl	cyclopentyl	CH ₂ S(2,4C1-C ₆ H ₃)
2-imidazolyl	cyclohexyl	CH2NHCH2CH3
0-2 (3CF ₃ -C ₅ H ₃ N)	CH ₂ OCH ₂ CH ₃	CH2NHCH2CH2CH3
0-2C1-6CF ₃ -C ₆ H ₃	CH ₂ OCH ₂ CH ₂ CH ₃	СH ₂ NHCH ₂ C (С ₆ H ₅)
	СH ₂ OCH ₂ CH (СH ₃) ₂	CH2NHCH2CH (CH3)2
	СH ₂ OCH ₂ (С ₆ H ₅)	СH ₂ NHCH ₂ (3СF ₃ -С ₆ H ₄)

 $CH_2NHCH_2(2C1-C_6H_4)$ CH2NH (C6H5) $CH_2NH(2C1-C_6H_4)$ $CH_2N(CH_3)(2C1-C_6H_4)$ OCH2CH2CH3 OCH2 (CH2) 2CH3 OCH2 (CH2) 3CH3 OCH2 (CH2) 5CH3 OCH2C (C6H5) OCH_2 (3CF₃-C₆H₄) $OCH_2(2C1-C_6H_4)$ OCH2CH (CH3) 2 O(C6H5) $O(3CF_3-C_6H_4)$ $O(2C1-C_6H_4)$ O(4SCH3-C6H4) $0(2,4C1-C_6H_3)$ SCH2CH2CH3 SCH2 (CH2) 2CH3 SCH2 (CH2) 3CH3 SCH2 (CH2) 5CH3 SCH2 (C6H5) SCH_2 (3SCH₃-C₆H₄) SCH2 (20CH3-C6H4) $SCH_2(2C1-C_6H_4)$ $SCH_2(2, 4-C_6H_3)$ SCH2 (4CF3-C6H4) S (CH₃)₃ SCH2CH (CH3) 2 S (C6H5) $S(3CF_3-C_6H_4)$ S (2C1-C6H4) S (40CH3-C6H4) S(2,4C1-C6H3) $S(2,6F-C_6H_3)$

2 (3CH₃-C₆H₄) NHCH2CH2CH3 NHCH2 (CH2) 2CH3 NHCH2 (CH2) 4CH3 NHCH2 (CH2) 5CH3 NHCH2CH (CH3) 2 NHCH2 (C6H5) $NHCH_2$ (3CF₃-C₆H₄) $NHCH_2$ (2C1-C₆H₄) $NHCH_2(4CH_3-C_6H_4)$ $NHCH_2(2, 4C1-C_6H_3)$ $NHCH_2(2,6C1-C_6H_3)$ NH (C₆H₅) NH $(3CF_3-C_6H_4)$ NH (2C1-C6H4) NH (3CH3-C6H4) NH (2, 4C1-C6H3) $NH(2,6C1-C_6H_3)$ $N(CH_3)(3CF_3-C_6H_4)$ N (CH₃) CH₂CH₂CH₃ N(CH₂)₄ N(CH₂)5 N(CH₂)6 N(CH2CH2-OCH2CH2)2 CH2CO2CH3 CH2CH2CO2CH2CH3 CH2CH2CO2CH3 CH2CH2OCH2CH3 CH2CH2SCH2CH3 CH2CH2-NHCH2CH3 CH_2CH_2N (CH_3) CH_2CH_3 CH=CH (CH₃)₂ CH2CH2CH=CH2 CH2CH=CH-CH3 CH=CH-CH2CH2-C1

CH2CH2CH-C1CH2-C1 C₆H₅ 3CF3-C6H4 2C1-C6H4 3CH3-C6H4 30CH3-C6H4 2CF3-C6H4 2,4C1-C6H3 2,6C1-C6H3 2SCH3-C6H4 $CH_2(C_6H_5)$ $CH_2 (3CF_3 - C_6H_4)$ CH₂ (2C1-C₆H₄) CH2 (4C1-C6H4) $CH_2(2,4C1-C_6H_3)$ CH2 (3SCH3-C6H4) CH_2 (30 CH_3 - C_6H_4) CH_2 (3C1- C_6H_4) $CH_2(2, 6F-C_6H_3)$ $CH_2(2,6C1-C_6H_3)$ CH_2 (3, 4F- C_6H_3) CH2-Si(CH3)3 $ON=C(CH_3)_2$ $ON=CH(C_6H_5)$ $ON=C(CH_3)C_6H_5$ $OCH_2(2, 6-C1-C_6H_3)$ OCH2 (C=CH2) CH3 OCH2-CH 4F-C6H4 4C1-C6H4 4Br-C₆H₄ 2-pyridyl 2-furyl 2-thiazolyl

CH₂OCH₂CH₃ CH2NHCH2CH2CH3 2-imidazolyl $0-2 (3CF_3-C_5H_3N)$ CH2OCH2CH2CH3 CH2NHCH2C (C6H5) 0-2C1-6CF3-C6H3 CH2OCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 $CH_2OCH_2(C_6H_5)$ $CH_2NHCH_2(3CF_3-C_6H_4)$ $R^1 = OCF_2H$, $R^2 = C = N$ CH_2OCH_2 (3CF₃-C₆H₄) $CH_2NHCH_2(2C1-C_6H_4)$ \mathbb{R}^3 CH2OCH2 (2C1-C6H4) CH2NH (C6H5) CH_2OCH_2 (3SCH₃-C₆H₄) CH2NH (2C1-C6H4) (CH₂)₂CH₃ $CH_2OCH_2(4C1-C_6H_4)$ (CH2) aCHa $CH_2N(CH_3)(2C1-C_6H_4)$ CH_2OCH_2 (2, 4F-C₆H₃) (CH₂)₄CH₃ OCH2CH2CH3 CH2CH2OCH2CH2CH3 (CH₂) 5CH₃ OCH₂ (CH₂) ₂CH₃ (CH₂) 6CH₃ CH₂O (C₆H₅) OCH₂ (CH₂) ₃CH₃ OCH₂ (CH₂) ₅CH₃ $CH_2O(3CF_3-C_6H_4)$ (CH₂)₇CH₃ (CH₂) 8CH₃ CH₂O(4CF₃-C₆H₄) OCH₂C (C₆H₅) (CH₂) ₉CH₃ CH2O (2C1-C6H4) OCH₂ (3CF₃-C₆H₄) CH2CH (CH3) 2 $CH_2O(3SCH_3-C_6H_4)$ OCH₂ (2C1-C₆H₄) CH2CH2CH(CH3)2 CH2O (2CH3-C6H4) OCH₂CH (CH₃)₂ CH2CH2CH2CH(CH3)2 $CH_2O(4C1-C_6H_4)$ O(C6H5) CH2CH2CH (CH3) CH2CH2CH3 CH₂O(2,4Cl-C₆H₃) $O(3CF_3-C_6H_4)$ CH2CH (CH3) CH2CH2CH3 CH2SCH2CH3 $O(2C1-C_6H_4)$ CH2CH (CH2CH3) CH2CH3 O(4SCH3-C6H4) CH2SCH2CH2CH3 CH2CH2CH2OCH2CH3 CH2SCH2CH(CH3)2 O(2,4C1-C6H3) CH2CH2CH2CH2OCH3 CH2SCH2 (C6H5) SCH2CH2CH3 CH2CH2CH2-S-CH2CH3 CH_2SCH_2 (3CF₃-C₆H₄) SCH2 (CH2) 2CH3 CH2CH2CH2CH2SCH3 CH2S (2C1-C6H4) SCH2 (CH2) 3CH3 CH2CH2CH2NHCH2CH3 $CH_2S(4CH_3-C_6H_4)$ SCH₂ (CH₂) ₅CH₃ CH₂S (2, 4C1-C₆H₃) CH2CF2CH(CH3)2 SCH₂ (C₆H₅) CH2CH2CH2CF2CH3 CH2S (3SCH3-C6H4) SCH2 (3SCH3-C6H4) $CH_2S(2,6C1-C_6H_3)$ CH2-cyclopropyl SCH2 (20CH3-C6H4) CH2-cyclobutyl CH₂S (C₆H₅) SCH2 (2C1-C6H4) $CH_2S(3CF_3-C_6H_4)$ SCH₂ (2, 4-C₆H₃) CH2-cyclopentyl CH2-cyclohexyl $CH_2S(2C1-C_6H_4)$ SCH2 (4CF3-C6H4) cyclopropyl $CH_2S(4CH_3-C_6H_4)$ S (CH3) 3 $CH_2S(2,6C1-C_6H_3)$ SCH₂CH (CH₃)₂ cyclobutyl CH2S (2, 4C1-C6H3) cyclopentyl S (C6H5) S (3CF3-C6H4) CH2NHCH2CH3 cyclohexyl

$s(2C1-C_6H_4)$
$S(40CH_3-C_6H_4)$
$s(2,4C1-C_6H_3)$
$S(2,6F-C_6H_3)$
2(3CH ₃ -C ₆ H ₄)
NHCH2CH2CH3
NHCH_2 (CH_2) $_2\mathrm{CH}_3$
$\mathrm{NHCH_2}\left(\mathrm{CH_2}\right)_4\mathrm{CH_3}$
инсн ₂ (сн ₂) ₅ сн ₃
NHCH ₂ CH (CH ₃) ₂
$NHCH_2(C_6H_5)$
$NHCH_2$ (3CF ₃ -C ₆ H ₄)
$NHCH_2$ (2C1-C ₆ H ₄)
$NHCH_2 (4CH_3-C_6H_4)$
$NHCH_2(2,4C1-C_6H_3)$
$NHCH_2(2,6C1-C_6H_3)$
NH (C ₆ H ₅)
NH (3CF $_3$ -C $_6$ H $_4$)
NH (2C1-C ₆ H ₄)
NH (3CH ₃ -C ₆ H ₄)
NH $(2, 4C1-C_6H_3)$
$NH(2,6C1-C_6H_3)$
$N(CH_3)(3CF_3-C_6H_4)$
$N(CH_3)CH_2CH_2CH_3$
N (CH ₂) ₄
N (CH ₂) ₅
N(CH ₂) ₆
$\text{N}\left(\text{CH}_2\text{CH}_2\text{-OCH}_2\text{CH}_2\right)_2$
CH ₂ CO ₂ CH ₃
$\mathrm{CH_2CH_2CO_2CH_2CH_3}$
сн ₂ сн ₂ со ₂ сн ₃
сн ₂ сн ₂ осн ₂ сн ₃
CH2CH2SCH2CH3
CH ₂ CH ₂ -NHCH ₂ CH ₃
CH ₂ CH ₂ N (CH ₃) CH ₂ CH ₃

СH=СH (СН ₃) 2
CH ₂ CH ₂ CH=CH ₂
CH ₂ CH=CH-CH ₃
CH=CH-CH ₂ CH ₂ -Cl
CH2CH2CH-C1CH2-C1
С ₆ н ₅
3CF ₃ -C ₆ H ₄
2C1-C ₆ H ₄
3CH ₃ -С ₆ Н ₄
30CH ₃ -C ₆ H ₄
2CF ₃ -C ₆ H ₄
2,4C1-C ₆ H ₃
2,6C1-C ₆ H ₃
2SCH3-C6H4
СH ₂ (С ₆ H ₅)
CH ₂ (3CF ₃ -C ₆ H ₄)
CH ₂ (2C1-C ₆ H ₄)
CH ₂ (4Cl-C ₆ H ₄)
CH ₂ (2, 4C1-C ₆ H ₃)
CH ₂ (3SCH ₃ -C ₆ H ₄)
CH ₂ (30CH ₃ -C ₆ H ₄)
CH ₂ (3C1-C ₆ H ₄)
CH ₂ (2,6F-C ₆ H ₃)
CH ₂ (2,6C1-С6H ₃)
$CH_2(3, 4F-C_6H_3)$
CH_2 -Si(CH_3) ₃
ON=C (CH ₃) ₂
ON=CH (C ₆ H ₅)
$ON=C(CH_3)C_6H_5$
OCH ₂ (2, 6-C1-C ₆ H ₃)
OCH ₂ (C=CH ₂) CH ₃
CH ₂ -CH
IF-C ₆ H ₄
1C1-C6H4

2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl 0-2 (3CF₃-C₅H₃N) 0-2C1-6CF₃-C₆H₃ $R^1=NO_2$, $R^2=C=N$ R3 $(CH_2)_2CH_3$ $(CH_2)_3CH_3$ (CH₂)₄CH₃(CH₂)₅CH₃ (CH₂) 6CH₃ (CH₂)₇CH₃(CH₂) 8CH₃ (CH₂)₉CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2CH2CH2CH(CH3)2 CH2CH2CH(CH3)CH2CH2CH3 CH2CH (CH3) CH2CH2CH3 CH2CH (CH2CH3) CH2CH3 CH2CH2CH2OCH2CH3 CH2CH2CH2CH2OCH3 CH₂CH₂CH₂-S-CH₂CH₃ CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH(CH3)2 CH2CH2CH2CF2CH3 CH2-cyclopropyl CH2-cyclobutyl CH2-cyclopentyl CH2-cyclohexyl

4Br-C₆H₄

cyclopropyl	CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH ₃) 3
cyclobutyl	CH ₂ S(2,6C1-C ₆ H ₃)	SCH2CH(CH3)2
cyclopentyl	CH ₂ S(2,4C1-C ₆ H ₃)	s(C ₆ H ₅)
cyclohexyl	CH ₂ NHCH ₂ CH ₃	S (3CF3-C6H4)
CH ₂ OCH ₂ CH ₃	CH2NHCH2CH2CH3	S(2C1-C6H4)
CH2OCH2CH2CH3	CH ₂ NHCH ₂ C(C ₆ H ₅)	S (40CH3-C6H4)
CH2OCH2CH(CH3)2	CH ₂ NHCH ₂ CH (CH ₃) ₂	S(2,4C1-C6H3)
$CH_2OCH_2(C_6H_5)$	CH ₂ NHCH ₂ (3CF ₃ -C ₆ H ₄)	S(2,6F-C ₆ H ₃)
$CH_2OCH_2 (3CF_3 - C_6H_4)$	CH ₂ NHCH ₂ (2C1-C ₆ H ₄)	2 (3CH ₃ -C ₆ H ₄)
CH_2OCH_2 (2C1- C_6H_4)	СH ₂ NH (С ₆ H ₅)	NHCH2CH2CH3
$CH_2OCH_2 (3SCH_3-C_6H_4)$	CH ₂ NH (2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₂ CH ₃
CH_2OCH_2 (4C1- C_6H_4)	CH ₂ N(CH ₃)(2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₄ CH ₃
CH_2OCH_2 (2, 4F-C ₆ H ₃)	OCH ₂ CH ₂ CH ₃	NHCH ₂ (CH ₂) ₅ CH ₃
$CH_2CH_2OCH_2CH_2CH_3$	OCH ₂ (CH ₂) ₂ CH ₃	NHCH2CH (CH3) 2
CH ₂ O (C ₆ H ₅)	осн ₂ (сн ₂) ₃ сн ₃	инсн ₂ (с ₆ н ₅)
$CH_2O(3CF_3-C_6H_4)$	OCH ₂ (CH ₂) ₅ CH ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)
$CH_2O(4CF_3-C_6H_4)$	OCH ₂ C(C ₆ H ₅)	NHCH ₂ (2C1-C ₆ H ₄)
$CH_2O(2C1-C_6H_4)$	OCH ₂ (3CF ₃ -C ₆ H ₄)	NHCH ₂ (4CH ₃ -С ₆ H ₄)
CH20 (3SCH3-C6H4)	OCH ₂ (2C1-C ₆ H ₄)	NHCH ₂ (2, 4C1-C ₆ H ₃)
$CH_2O(2CH_3-C_6H_4)$	OCH ₂ CH (CH ₃) ₂	NHCH ₂ (2,6C1-C ₆ H ₃)
$CH_2O(4C1-C_6H_4)$	O(C ₆ H ₅)	NH (С ₆ Н ₅)
$CH_2O(2,4C1-C_6H_3)$	O(3CF ₃ -C ₆ H ₄)	NH (3CF ₃ -C ₆ H ₄)
CH ₂ SCH ₂ CH ₃	O(2C1-C6H4)	NH (2C1-C ₆ H ₄)
CH2SCH2CH2CH3	O(4SCH3-C6H4)	NH (ЗСН _З -С ₆ Н ₄)
CH2SCH2CH(CH3)2	O(2,4C1-C ₆ H ₃)	NH(2,4C1-C6H3)
CH ₂ SCH ₂ (C ₆ H ₅)	SCH2CH2CH3	NH(2,6C1-C ₆ H ₃)
CH_2SCH_2 (3CF ₃ -C ₆ H ₄)	SCH ₂ (CH ₂) ₂ CH ₃	N(CH ₃)(3CF ₃ -C ₆ H ₄)
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (CH ₂) ₃ CH ₃	n (CH ₃) CH ₂ CH ₂ CH ₃
$CH_2S(4CH_3-C_6H_4)$	SCH ₂ (CH ₂) ₅ CH ₃	N(CH ₂) ₄
$CH_2S(2, 4C1-C_6H_3)$	SCH ₂ (C ₆ H ₅)	N(CH ₂) ₅
$CH_2S(3SCH_3-C_6H_4)$	SCH ₂ (3SCH ₃ -C ₆ H ₄)	N(CH ₂) ₆
$CH_2S(2,6C1-C_6H_3)$	SCH ₂ (20CH ₃ -C ₆ H ₄)	$N(CH_2CH_2-OCH_2CH_2)_2$
CH ₂ S (C ₆ H ₅)	SCH ₂ (2C1-C ₆ H ₄)	СH ₂ CO ₂ CH ₃
$CH_2S(3CF_3-C_6H_4)$	SCH ₂ (2,4-C ₆ H ₃)	СH ₂ CH ₂ CO ₂ CH ₂ CH ₃
$CH_2S(2C1-C_6H_4)$	SCH ₂ (4CF ₃ -C ₆ H ₄)	CH ₂ CH ₂ CO ₂ CH ₃

	CH ₂	1
CH ₂ CH ₂ OCH ₂ CH ₃	OCH ₂ -CH 2	CH ₂ -cyclopropyl
CH ₂ CH ₂ SCH ₂ CH ₃	CH ₂	CH ₂ -cyclobutyl
CH2CH2-NHCH2CH3	4F-C ₆ H ₄	CH ₂ -cyclopentyl
$\mathrm{CH_2CH_2N}\left(\mathrm{CH_3}\right)\mathrm{CH_2CH_3}$	4C1-C ₆ H ₄	CH ₂ -cyclohexyl
CH=CH (CH ₃) ₂	4Br-C ₆ H ₄	cyclopropyl
CH2CH2CH=CH2	2-pyridyl	cyclobutyl
CH ₂ CH=CH-CH ₃	2-furyl	cyclopentyl
CH=CH-CH ₂ CH ₂ -Cl	2-thiazolyl	cyclohexyl
CH2CH2CH-C1CH2-C1	2-imidazolyl	CH2OCH2CH3
С ₆ н ₅	0-2 (3CF ₃ -C ₅ H ₃ N)	CH2OCH2CH2CH3
3CF ₃ -C ₆ H ₄	0-2C1-6CF3-C6H3	CH2OCH2CH(CH3)2
2C1-C ₆ H ₄		CH ₂ OCH ₂ (C ₆ H ₅)
3CH ₃ -C ₆ H ₄	$R^1=C1, R^2=CO_2H$	СH ₂ ОСH ₂ (3СF ₃ -С ₆ H
30CH ₃ -C ₆ H ₄	R ³	СH ₂ ОСH ₂ (2C1-С ₆ H ₄)
2CF3-C6H4	(CH ₂) ₂ CH ₃	СH ₂ ОСH ₂ (3SCH ₃ -С ₆)
2,4Cl-C ₆ H ₃	(CH ₂) ₃ CH ₃	CH2OCH2 (4C1-C6H4)
2,6C1-C ₆ H ₃	(CH ₂) ₄ CH ₃	СH ₂ ОСH ₂ (2, 4F-С ₆ H
2SCH3-C6H4	(CH ₂) ₅ CH ₃	CH2CH2OCH2CH2CH3
CH ₂ (C ₆ H ₅)	(CH ₂) 6CH ₃	СH ₂ O (С ₆ H ₅)
$CH_2 (3CF_3 - C_6H_4)$	(CH ₂) ₇ CH ₃	СH ₂ O(3CF ₃ -С ₆ H ₄)
$CH_2 (2C1-C_6H_4)$	(CH ₂) ₈ CH ₃	CH ₂ O (4CF ₃ -C ₆ H ₄)
$CH_2(4C1-C_6H_4)$	(CH ₂) ₉ CH ₃	СH ₂ O(2C1-С ₆ H ₄)
$CH_2(2,4C1-C_6H_3)$	СH ₂ CH (СH ₃) ₂	СH ₂ O(3SCH ₃ -С ₆ H ₄)
$CH_2 (3SCH_3 - C_6H_4)$	СH ₂ CH ₂ CH (СH ₃) ₂	СH ₂ O (2СH ₃ -С ₆ H ₄)
$CH_2 (30CH_3 - C_6H_4)$	CH ₂ CH ₂ CH ₂ CH (CH ₃) ₂	CH ₂ O(4C1-C ₆ H ₄)
$CH_2(3C1-C_6H_4)$	CH2CH2CH(CH3)CH2CH2CH3	CH ₂ O(2,4C1-C ₆ H ₃)
$CH_2(2,6F-C_6H_3)$	CH ₂ CH (CH ₃) CH ₂ CH ₂ CH ₃	СH ₂ SCH ₂ CH ₃
$CH_2(2,6C1-C_6H_3)$	Сн ₂ Сн (Сн ₂ Сн ₃) Сн ₂ Сн ₃	CH ₂ SCH ₂ CH ₂ CH ₃
$CH_2(3, 4F-C_6H_3)$	CH2CH2CH2OCH2CH3	CH ₂ SCH ₂ CH (CH ₃) 2
CH_2 -Si(CH_3) ₃	CH2CH2CH2CH3	CH ₂ SCH ₂ (C ₆ H ₅)
ON= $C(CH_3)_2$	CH2CH2CH2-S-CH2CH3	CH2SCH2 (3CF3-C6H4
ON=CH (C ₆ H ₅)	CH ₂ CH ₂ CH ₂ CH ₂ SCH ₃	CH ₂ S (2C1-C ₆ H ₄)
$ON=C(CH_3)C_6H_5$	CH ₂ CH ₂ CH ₂ NHCH ₂ CH ₃	СH ₂ S(4СH ₃ -С ₆ H ₄)
OCH ₂ (2,6-C1-C ₆ H ₃)	CH2CF2CH (CH3)2	CH ₂ S(2,4C1-C ₆ H ₃)
OCH ₂ (C=CH ₂) CH ₃	CH2CH2CH2CF2CH3	сн ₂ s (зѕсн ₃ -с ₆ н ₄)

2-cyclobutyl 2-cyclopentyl 12-cyclohexyl clopropyl clobutyl clopentyl clohexyl 20CH2CH3 20CH2CH2CH3 20CH2CH (CH3) 2 20CH2 (C6H5) 20CH₂ (3CF₃-C₆H₄) 20CH₂ (2C1-C₆H₄) 20CH2 (3SCH3-C6H4) 20CH2 (4Cl-C6H4) 20CH₂ (2, 4F-C₆H₃) 2CH2OCH2CH2CH3 20 (C6H5) $2^{\circ}(3CF_3-C_6H_4)$ 20 (4CF3-C6H4) 20 (2C1-C6H4) 20 (3SCH3-C6H4) 20 (2CH3-C6H4) 20 (4C1-C6H4) 20(2,4C1-C₆H₃) 2SCH2CH3 2SCH2CH2CH3 2SCH2CH(CH3)2 2SCH2 (C6H5) 2SCH2 (3CF3-C6H4) 2S (2C1-C6H4) 2S (4CH3-C6H4) $2^{S}(2,4C1-C_6H_3)$ CH2S (3SCH3-C6H4)

CH ₂ S(2,6C1-C ₆ H ₃)	SCH ₂ (20CH ₃ -C ₆ H ₄)	N(CH2CH2-OCH2CH2)2
CH ₂ S (C ₆ H ₅)	SCH ₂ (2C1-C ₆ H ₄)	CH ₂ CO ₂ CH ₃
$CH_2S(3CF_3-C_6H_4)$	SCH ₂ (2,4-C ₆ H ₃)	CH2CH2CO2CH2CH3
$CH_2S(2C1-C_6H_4)$	SCH ₂ (4CF ₃ -C ₆ H ₄)	CH2CH2CO2CH3
CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH ₃) 3	CH2CH2OCH2CH3
CH ₂ S(2,6C1-C ₆ H ₃)	SCH2CH(CH3)2	CH2CH2SCH2CH3
$CH_2S(2,4C1-C_6H_3)$	s (C ₆ H ₅)	CH2CH2-NHCH2CH3
CH2NHCH2CH3	S (3CF ₃ -C ₆ H ₄)	CH2CH2N (CH3) CH2CH3
CH2NHCH2CH2CH3	S(2C1-C ₆ H ₄)	CH=CH (CH ₃) ₂
$CH_2NHCH_2C(C_6H_5)$	S (40CH3-C6H4)	CH2CH2CH=CH2
CH2NHCH2CH (CH3)2	S(2,4C1-C ₆ H ₃)	CH ₂ CH=CH-CH ₃
CH_2NHCH_2 (3CF ₃ -C ₆ H ₄)	S(2,6F-C ₆ H ₃)	CH=CH-CH ₂ CH ₂ -C1
$CH_2NHCH_2(2C1-C_6H_4)$	2 (3CH ₃ -C ₆ H ₄)	CH2CH2CH-C1CH2-C1
CH ₂ NH (С ₆ H ₅)	NHCH ₂ CH ₂ CH ₃	С ₆ н ₅
CH ₂ NH (2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₂ CH ₃	3CF3-C6H4
$CH_2N(CH_3)(2C1-C_6H_4)$	NHCH ₂ (CH ₂) ₄ CH ₃	2C1-C6H4
OCH ₂ CH ₂ CH ₃	NHCH ₂ (CH ₂) ₅ CH ₃	3CH3-C6H4
OCH ₂ (CH ₂) ₂ CH ₃	NHCH ₂ CH (CH ₃) ₂	30CH3-C6H4
осн ₂ (сн ₂) ₃ сн ₃	NHCH ₂ (C ₆ H ₅)	2CF3-C6H4
осн ₂ (сн ₂) ₅ сн ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)	2,4C1-C6H3
OCH ₂ C (C ₆ H ₅)	NHCH ₂ (2C1-C ₆ H ₄)	2,6C1-C6H3
$OCH_2 (3CF_3 - C_6H_4)$	NHCH ₂ (4CH ₃ -C ₆ H ₄)	2SCH3-C6H4
$OCH_2(2C1-C_6H_4)$	NHCH ₂ (2, 4C1-C ₆ H ₃)	СH ₂ (С ₆ H ₅)
OCH ₂ CH (CH ₃) ₂	NHCH ₂ (2, 6C1-C ₆ H ₃)	CH ₂ (3CF ₃ -C ₆ H ₄)
O(C ₆ H ₅)	NH (C ₆ H ₅)	CH ₂ (2C1-C ₆ H ₄)
$O(3CF_3-C_6H_4)$	NH (3CF ₃ -C ₆ H ₄)	CH ₂ (4C1-C ₆ H ₄)
$O(2C1-C_6H_4)$	NH (2C1-C ₆ H ₄)	CH ₂ (2,4C1-C ₆ H ₃)
O(4SCH3-C6H4)	NH (3CH ₃ -C ₆ H ₄)	CH ₂ (3SCH ₃ -С ₆ H ₄)
O(2,4C1-C ₆ H ₃)	NH (2, 4C1-C ₆ H ₃)	CH ₂ (ЗОСН ₃ -С ₆ Н ₄)
SCH ₂ CH ₂ CH ₃	NH(2,6C1-C ₆ H ₃)	CH ₂ (3C1-C ₆ H ₄)
SCH ₂ (CH ₂) ₂ CH ₃	N(CH ₃) (3CF ₃ -C ₆ H ₄)	CH ₂ (2,6F-C ₆ H ₃)
SCH ₂ (CH ₂) ₃ CH ₃	N (CH ₃) CH ₂ CH ₂ CH ₃	CH ₂ (2,6C1-С ₆ H ₃)
SCH ₂ (CH ₂) ₅ CH ₃	N (CH ₂) ₄	CH ₂ (3, 4F-C ₆ H ₃)
SCH ₂ (C ₆ H ₅)	N (CH ₂) 5	Сн ₂ -si (Сн ₃) 3
$SCH_2(3SCH_3-C_6H_4)$	N(CH ₂) ₆	ON=C (CH ₃) ₂

ON=CH (C_6H_5) ON=C (CH_3) C_6H_5 OCH₂ (2, 6-C1-C₆H₃) OCH₂ (C=CH₂) CH₃ OCH₂-CH CH_2 CH_2 CH_2 CH_2

4C1-C₆H₄

4Br-C₆H₄

2-pyridyl

2-furyl

2-thiazolyl

2-imidazolyl

0-2(3CF₃-C₅H₃N)

0-2C1-6CF₃-C₆H₃

 $R^1=Br$, $R^2=CO_2H$

 \mathbb{R}^3 $(CH_2)_2CH_3$ (CH₂)₃CH₃ (CH₂)₄CH₃(CH₂)₅CH₃ (CH₂) 6CH₃ (CH₂)₇CH₃ (CH₂)₈CH₃ (CH₂) 9CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2CH2CH2CH(CH3)2 CH2CH2CH (CH3) CH2CH2CH3 CH2CH (CH3) CH2CH2CH3 CH2CH (CH2CH3) CH2CH3 CH2CH2CH2OCH2CH3

CH2CH2CH2CH2OCH3

CH2CH2CH2-S-CH2CH3

CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH (CH3) 2 CH2CH2CH2CF2CH3 CH2-cyclopropyl CH2-cyclobutyl CH₂-cyclopentyl CH₂-cyclohexyl cyclopropyl cyclobutyl cyclopentyl cyclohexyl CH2OCH2CH3 CH2OCH2CH2CH3 CH2OCH2CH (CH3) 2 CH₂OCH₂ (C₆H₅) CH_2OCH_2 (3CF₃-C₆H₄) CH_2OCH_2 (2C1- C_6H_4) CH_2OCH_2 (3SCH₃-C₆H₄) $CH_2OCH_2 (4C1-C_6H_4)$ CH_2OCH_2 (2, 4F-C₆H₃) CH2CH2OCH2CH2CH3 $CH_2O(C_6H_5)$ $CH_2O(3CF_3-C_6H_4)$ $CH_2O(4CF_3-C_6H_4)$ $CH_2O(2C1-C_6H_4)$ $CH_2O(3SCH_3-C_6H_4)$ CH₂O(2CH₃-C₆H₄) CH20 (4C1-C6H4) $CH_2O(2, 4C1-C_6H_3)$ CH2SCH2CH3 CH2SCH2CH2CH3

CH2SCH2CH (CH3) 2

 $CH_2SCH_2(3CF_3-C_6H_4)$

CH2SCH2 (C6H5)

CH₂S (2C1-C₆H₄) $CH_2S(4CH_3-C_6H_4)$ $CH_2S(2,4C1-C_6H_3)$ $CH_2S(3SCH_3-C_6H_4)$ $CH_2S(2,6C1-C_6H_3)$ $CH_2S(C_6H_5)$ CH₂S (3CF₃-C₆H₄) CH₂S (2C1-C₆H₄) $CH_2S(4CH_3-C_6H_4)$ $CH_2S(2,6C1-C_6H_3)$ $CH_2S(2,4C1-C_6H_3)$ CH2NHCH2CH3 CH2NHCH2CH2CH3 CH2NHCH2C (C6H5) CH2NHCH2CH (CH3) 2 $CH_2NHCH_2(3CF_3-C_6H_4)$ $CH_2NHCH_2(2C1-C_6H_4)$ CH2NH (C6H5) CH2NH (2C1-C6H4) $CH_2N(CH_3)(2C1-C_6H_4)$ OCH2CH2CH3 OCH₂ (CH₂)₂CH₃ OCH₂ (CH₂) 3CH₃ OCH₂ (CH₂) 5CH₃ $OCH_2C(C_6H_5)$ $OCH_2 (3CF_3 - C_6H_4)$ $OCH_2(2C1-C_6H_4)$ OCH₂CH (CH₃)₂ O(C6H5) $O(3CF_3-C_6H_4)$ O(2C1-C6H4) O(4SCH3-C6H4) O(2,4C1-C6H3) SCH2CH2CH3

SCH2 (CH2) 2CH3

SCH ₂ (CH ₂) ₃ CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃	CH ₂ (2,6C1-C ₆ H ₃)
SCH ₂ (CH ₂) ₅ CH ₃	N (CH ₂) ₄	CH ₂ (3, 4F-C ₆ H ₃)
SCH ₂ (C ₆ H ₅)	N(CH ₂) ₅	CH ₂ -Si(CH ₃) ₃
$SCH_2(3SCH_3-C_6H_4)$	N(CH ₂) ₆	ON=C (CH ₃) ₂
SCH ₂ (20CH ₃ -C ₆ H ₄)	N(CH2CH2-OCH2CH2)2	ON=CH (C ₆ H ₅)
$SCH_2(2C1-C_6H_4)$	CH ₂ CO ₂ CH ₃	ON=C (CH ₃) C ₆ H ₅
SCH ₂ (2, 4-C ₆ H ₃)	CH2CH2CO2CH2CH3	OCH ₂ (2, 6-C1-C ₆ H ₃)
$SCH_2(4CF_3-C_6H_4)$	CH2CH2CO2CH3	осн ₂ (C=Сн ₂) Сн ₃
S (CH ₃) 3	CH2CH2OCH2CH3	OCH -CH CH2
SCH ₂ CH (CH ₃) ₂	CH2CH2SCH2CH3	OCH ₂ -CH CH ₂
S(C ₆ H ₅)	CH ₂ CH ₂ -NHCH ₂ CH ₃	4F-C ₆ H ₄
S(3CF3-C6H4)	CH ₂ CH ₂ N (CH ₃) CH ₂ CH ₃	4C1-C ₆ H ₄
S(2C1-C ₆ H ₄)	CH=CH (CH ₃) ₂	4Br-C ₆ H ₄
S(40CH3-C6H4)	CH ₂ CH ₂ CH=CH ₂	2-pyridyl
S(2,4C1-C ₆ H ₃)	CH ₂ CH=CH-CH ₃	2-furyl
$S(2,6F-C_6H_3)$	CH=CH-CH ₂ CH ₂ -Cl	2-thiazolyl
2 (3CH ₃ -C ₆ H ₄)	CH2CH2CH-C1CH2-C1	2-imidazolyl
NHCH2CH2CH3	С ₆ н ₅	O-2 (3CF ₃ -C ₅ H ₃ N)
NHCH ₂ (CH ₂) ₂ CH ₃	3CF ₃ -C ₆ H ₄	0-2C1-6CF ₃ -C ₆ H ₃
NHCH ₂ (CH ₂) ₄ CH ₃	2C1-C6H4	10 -0- 00-3 06-3
NHCH ₂ (CH ₂) ₅ CH ₃	3CH ₃ -C ₆ H ₄	$R^{1}=I$, $R^{2}=CO_{2}H$
NHCH ₂ CH (CH ₃) ₂	30CH3-C6H4	R ³
$NHCH_2(C_6H_5)$	2CF3-C6H4	(CH ₂) ₂ CH ₃
NHCH ₂ (3CF ₃ -C ₆ H ₄)	2,4C1-C ₆ H ₃	(CH ₂) ₃ CH ₃
NHCH ₂ (2C1-C ₆ H ₄)	2,6C1-C ₆ H ₃	(CH ₂) ₄ CH ₃
$NHCH_2(4CH_3-C_6H_4)$	2SCH3-C6H4	(CH ₂) ₅ CH ₃
$NHCH_2(2,4C1-C_6H_3)$	СH ₂ (С ₆ H ₅)	(CH ₂) ₆ CH ₃
$NHCH_2$ (2, 6C1-C ₆ H ₃)	CH ₂ (3CF ₃ -C ₆ H ₄)	(CH ₂) ₇ CH ₃
NH (C ₆ H ₅)	CH ₂ (2C1-C ₆ H ₄)	(CH ₂) ₈ CH ₃
NH(3CF3-C6H4)	CH ₂ (4C1-C ₆ H ₄)	(CH ₂) ₉ CH ₃
NH (2C1-C ₆ H ₄)	CH ₂ (2,4C1-C ₆ H ₃)	СH ₂ CH (СН ₃) ₂
NH (3CH3-C6H4)	CH ₂ (3SCH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH (CH ₃) ₂
NH(2,4C1-C ₆ H ₃)	CH ₂ (30CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH ₂ CH (CH ₃) ₂
NH (2,6C1-C ₆ H ₃)	CH ₂ (3C1-C ₆ H ₄)	CH ₂ CH ₂ CH (CH ₃) CH ₂ CH ₂ CH ₃
$N(CH_3)(3CF_3-C_6H_4)$	CH ₂ (2, 6F-C ₆ H ₃)	CH ₂ CH (CH ₃) CH ₂ CH ₂ CH ₃
	ı	12 (03, 0.1201120113

CH ₂ CH (CH ₂ CH ₃) CH ₂ CH ₃
$\mathrm{CH_2CH_2CH_2OCH_2CH_3}$
$\mathrm{CH_2CH_2CH_2CH_2OCH_3}$
CH2CH2CH2-S-CH2CH3
CH2CH2CH2CH2SCH3
$\mathrm{CH_2CH_2CH_2NHCH_2CH_3}$
CH2CF2CH(CH3)2
CH2CH2CH2CF2CH3
CH ₂ -cyclopropyl
CH2-cyclobutyl
CH2-cyclopentyl
CH2-cyclohexyl
cyclopropyl
cyclobutyl
cyclopentyl
cyclohexyl
CH ₂ OCH ₂ CH ₃
CH2OCH2CH2CH3
${\rm CH_2OCH_2CH(CH_3)_2}$
$CH_2OCH_2(C_6H_5)$
CH_2OCH_2 (3CF ₃ -C ₆ H ₄)
CH_2OCH_2 (2C1- C_6H_4)
$\mathrm{CH_2OCH_2}$ (3SCH ₃ -C ₆ H ₄)
CH_2OCH_2 (4C1-C ₆ H ₄)
$CH_2OCH_2(2, 4F-C_6H_3)$
$\mathrm{CH_2CH_2OCH_2CH_2CH_3}$
CH ₂ O (C ₆ H ₅)
$CH_2O(3CF_3-C_6H_4)$
$CH_2O(4CF_3-C_6H_4)$
$CH_2O(2C1-C_6H_4)$
$CH_2O(3SCH_3-C_6H_4)$
$CH_2O(2CH_3-C_6H_4)$
$CH_2O(4C1-C_6H_4)$
$CH_2O(2, 4C1-C_6H_3)$
CH ₂ SCH ₂ CH ₃

CH ₂ SCH ₂ CH ₂ CH ₃
CH ₂ SCH ₂ CH (CH ₃) 2
CH ₂ SCH ₂ (C ₆ H ₅)
CH ₂ SCH ₂ (3CF ₃ -C ₆ H ₄)
CH ₂ S (2C1-C ₆ H ₄)
CH ₂ S (4CH ₃ -C ₆ H ₄)
CH ₂ S(2,4C1-C ₆ H ₃)
CH ₂ S (3SCH ₃ -C ₆ H ₄)
CH ₂ S(2,6Cl-C ₆ H ₃)
сн ₂ s (с ₆ н ₅)
CH ₂ S (3CF ₃ -C ₆ H ₄)
CH ₂ S (2C1-C ₆ H ₄)
CH ₂ S (4CH ₃ -C ₆ H ₄)
CH ₂ S(2,6Cl-C ₆ H ₃)
$CH_2S(2,4C1-C_6H_3)$
CH ₂ NHCH ₂ CH ₃
CH ₂ NHCH ₂ CH ₂ CH ₃
$CH_2NHCH_2C(C_6H_5)$
CH2NHCH2CH (CH3)2
CH_2NHCH_2 (3CF ₃ -C ₆ H ₄)
$CH_2NHCH_2(2C1-C_6H_4)$
СH ₂ NH (С ₆ H ₅)
CH ₂ NH (2C1-C ₆ H ₄)
CH ₂ N (CH ₃) (2C1-C ₆ H ₄)
осн ₂ сн ₂ сн ₃
осн ₂ (сн ₂) ₂ сн ₃
осн ₂ (сн ₂) ₃ сн ₃
осн ₂ (сн ₂) ₅ сн ₃
осн ₂ с (с ₆ н ₅)
осн ₂ (3СF ₃ -С ₆ н ₄)
осн ₂ (2С1-С ₆ н ₄)
осн ₂ сн (сн ₃) ₂
O(C ₆ H ₅)
O(3CF ₃ -C ₆ H ₄)
0(2C1-C ₆ H ₄)

O(4SCH3-C6H4) O(2,4C1-C6H3) SCH2CH2CH3 SCH2 (CH2) 2CH3 SCH₂ (CH₂) ₃CH₃ SCH2 (CH2) 5CH3 SCH2 (C6H5) SCH2 (3SCH3-C6H4) SCH₂ (20CH₃-C₆H₄) SCH2 (2C1-C6H4) SCH₂ (2, 4-C₆H₃) SCH2 (4CF3-C6H4) S (CH3) 3 SCH₂CH (CH₃)₂ S (C6H5) S (3CF3-C6H4) S (2C1-C6H4) S (40CH3-C6H4) S(2,4C1-C6H3) S(2,6F-C6H3) 2 (3CH3-C6H4) NHCH2CH2CH3 NHCH2 (CH2) 2CH3 NHCH2 (CH2) 4CH3 NHCH2 (CH2) 5CH3 NHCH2CH (CH3) 2 NHCH₂ (C₆H₅) NHCH₂ (3CF₃-C₆H₄)NHCH₂ (2C1-C₆H₄) NHCH₂ (4CH₃-C₆H₄) $NHCH_2(2, 4C1-C_6H_3)$ NHCH₂ (2,6C1-C₆H₃) NH (C₆H₅) NH (3CF3-C6H4) NH (2C1-C6H4)

 $NH(3CH_3-C_6H_4)$ $NH(2,4C1-C_6H_3)$ $NH(2,6C1-C_6H_3)$ $N(CH_3)(3CF_3-C_6H_4)$ $N(CH_3)CH_2CH_2CH_3$ N(CH₂)₄N(CH₂)₅N (CH₂) 6 $N(CH_2CH_2-OCH_2CH_2)_2$ CH2CO2CH3 CH2CH2CO2CH2CH3 CH2CH2CO2CH3 CH2CH2OCH2CH3 CH2CH2SCH2CH3 CH2CH2-NHCH2CH3 CH2CH2N (CH3) CH2CH3 CH=CH (CH₃)₂ CH2CH2CH=CH2 CH2CH=CH-CH3 $CH=CH-CH_2CH_2-C1$ CH2CH2CH-C1CH2-C1 C_6H_5 3CF3-C6H4 2C1-C6H4 3CH3-C6H4 30CH3-C6H4 2CF3-C6H4 2,4C1-C6H3 2,6C1-C6H3 2SCH3-C6H4 $CH_2(C_6H_5)$ $CH_2 (3CF_3 - C_6H_4)$ $CH_2(2C1-C_6H_4)$ $CH_2(4C1-C_6H_4)$ $CH_2(2, 4C1-C_6H_3)$

CH2 (3SCH3-C6H4) СH₂ (ЗОСН₃-С₆H₄) $CH_2 (3C1-C_6H_4)$ $CH_2(2,6F-C_6H_3)$ $CH_2(2,6C1-C_6H_3)$ $CH_2(3, 4F-C_6H_3)$ CH_2 -Si(CH_3)3 $ON=C(CH_3)_2$ $ON=CH(C_6H_5)$ $ON=C(CH_3)C_6H_5$ $OCH_2(2, 6-C1-C_6H_3)$ OCH₂ (C=CH₂) CH₃ осн₂-сң 4F-C6H4 4C1-C6H4 4Br-C6H4 2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl O-2 (3CF₃-C₅H₃N) 0-2C1-6CF3-C6H3 $R^1 = OCH_3, R^2 = CO_2H$ _R3 (CH₂)₂CH₃ (CH₂)₃CH₃ (CH₂)₄CH₃(CH₂)₅CH₃ (CH2) 6CH3 (CH₂)₇CH₃ (CH₂) 8CH₃ (CH₂) 9CH₃ CH₂CH (CH₃)₂

CH2CH2CH(CH3)2 CH2CH2CH2CH(CH3)2 CH2CH2CH (CH3) CH2CH2CH3 CH2CH (CH3) CH2CH2CH3 CH_2CH (CH_2CH_3) CH_2CH_3 CH2CH2CH2OCH2CH3 CH2CH2CH2CH2OCH3 CH2CH2CH2-S-CH2CH3 CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH(CH3)2 CH2CH2CH2CF2CH3 CH2-cyclopropyl CH2-cyclobutyl CH₂-cyclopentyl CH2-cyclohexyl cyclopropyl cyclobutyl cyclopentyl cyclohexyl CH₂OCH₂CH₃ CH2OCH2CH2CH3 CH2OCH2CH (CH3) 2 CH₂OCH₂ (С₆H₅) $CH_2OCH_2(3CF_3-C_6H_4)$ CH2OCH2 (2C1-C6H4) CH_2OCH_2 (3SCH₃-C₆H₄) $CH_2OCH_2(4C1-C_6H_4)$ CH_2OCH_2 (2, 4F-C₆H₃) CH2CH2OCH2CH2CH3 CH2O(C6H5) $CH_2O(3CF_3-C_6H_4)$ CH2O (4CF3-C6H4) CH₂O (2C1-C₆H₄) СH₂O(3SCH₃-С₆H₄)

$CH_2O(2CH_3-C_6H_4)$	OCH ₂ CH(CH ₃) ₂	NHCH ₂ (2,6C1-C ₆ H ₃)
CH ₂ O(4C1-C ₆ H ₄)	O(C ₆ H ₅)	ин (С ₆ н ₅)
CH ₂ O(2,4C1-C ₆ H ₃)	O(3CF3-C6H4)	NH (3CF ₃ -C ₆ H ₄)
CH ₂ SCH ₂ CH ₃	O(2C1-C6H4)	NH (2C1-C6H4)
CH2SCH2CH2CH3	O(4SCH3-C6H4)	NH (3CH3-C6H4)
CH2SCH2CH(CH3)2	O(2,4C1-C ₆ H ₃)	NH (2, 4C1-C ₆ H ₃)
CH ₂ SCH ₂ (C ₆ H ₅)	SCH ₂ CH ₂ CH ₃	NH(2,6Cl-C ₆ H ₃)
CH ₂ SCH ₂ (3CF ₃ -C ₆ H ₄)	scн ₂ (сн ₂) ₂ сн ₃	N(CH ₃) (3CF ₃ -C ₆ H ₄)
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (CH ₂) ₃ CH ₃	N(CH3)CH2CH2CH3
CH ₂ S (4CH ₃ -C ₆ H ₄)	scн ₂ (сн ₂) ₅ сн ₃	N (CH ₂) 4
CH ₂ S (2, 4C1-C ₆ H ₃)	SCH ₂ (C ₆ H ₅)	N (CH ₂) ₅
CH ₂ S (3SCH ₃ -C ₆ H ₄)	SCH2 (3SCH3-C6H4)	N (CH ₂) 6
CH ₂ S(2,6C1-C ₆ H ₃)	SCH ₂ (20CH ₃ -C ₆ H ₄)	м (СH ₂ CH ₂ -ОСH ₂ CH ₂) ₂
CH ₂ S (C ₆ H ₅)	SCH ₂ (2C1-C ₆ H ₄)	сн ₂ со ₂ сн ₃
CH ₂ S (3CF ₃ -C ₆ H ₄)	SCH ₂ (2,4-C ₆ H ₃)	CH ₂ CH ₂ CO ₂ CH ₂ CH ₃
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (4CF ₃ -C ₆ H ₄)	CH ₂ CH ₂ CO ₂ CH ₃
CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH ₃) 3	CH2CH2OCH2CH3
CH ₂ S(2,6C1-C ₆ H ₃)	SCH2CH (CH3)2	CH ₂ CH ₂ SCH ₂ CH ₃
CH ₂ S(2,4C1-C ₆ H ₃)	s (C ₆ H ₅)	CH2CH2-NHCH2CH3
CH2NHCH2CH3	S(3CF ₃ -C ₆ H ₄)	$\mathrm{CH_2CH_2N}$ ($\mathrm{CH_3}$) $\mathrm{CH_2CH_3}$
CH2NHCH2CH2CH3	S (2C1-C ₆ H ₄)	CH=CH (CH ₃) ₂
$CH_2NHCH_2C(C_6H_5)$	S (40CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH=CH ₂
CH2NHCH2CH (CH3)2	S(2,4C1-C ₆ H ₃)	CH ₂ CH=CH-CH ₃
CH ₂ NHCH ₂ (3CF ₃ -C ₆ H ₄)	s(2,6F-C ₆ H ₃)	CH=CH-CH ₂ CH ₂ -C1
CH_2NHCH_2 (2C1- C_6H_4)	2(3CH ₃ -C ₆ H ₄)	CH2CH2CH-C1CH2-C1
CH ₂ NH (C ₆ H ₅)	инсн ₂ сн ₂ сн ₃	С ₆ н ₅
CH ₂ NH (2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₂ CH ₃	3CF ₃ -C ₆ H ₄
$CH_2N(CH_3)$ (2C1- C_6H_4)	NHCH ₂ (CH ₂) ₄ CH ₃	2C1-С _б н ₄
осн ₂ сн ₂ сн ₃	NHCH ₂ (CH ₂) ₅ CH ₃	3CH3-C6H4
OCH ₂ (CH ₂) ₂ CH ₃	NHCH ₂ CH (CH ₃) ₂	30CH ₃ -C ₆ H ₄
осн ₂ (сн ₂) ₃ сн ₃	инсн ₂ (с ₆ н ₅)	2CF3-C6H4
OCH ₂ (CH ₂) ₅ CH ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)	2,4C1-C ₆ H ₃
осн ₂ с (с ₆ н ₅)	NHCH ₂ (2C1-C ₆ H ₄)	2,6C1-C6H3
OCH ₂ (3CF ₃ -C ₆ H ₄)	NHCH ₂ (4CH ₃ -C ₆ H ₄)	2SCH3-C6H4
OCH ₂ (2C1-C ₆ H ₄)	NHCH ₂ (2, 4C1-C ₆ H ₃)	CH ₂ (C ₆ H ₅)

$CH_2(3CF_3-C_6H_4)$
$CH_2(2C1-C_6H_4)$
$CH_2(4C1-C_6H_4)$
$CH_2(2,4C1-C_6H_3)$
$CH_2 (3SCH_3 - C_6H_4)$
$CH_2 (30CH_3 - C_6H_4)$
$CH_2(3C1-C_6H_4)$
$CH_2(2,6F-C_6H_3)$
$CH_2(2,6C1-C_6H_3)$
$CH_2(3, 4F-C_6H_3)$
CH ₂ -Si(CH ₃) ₃
ON=C (CH $_3$) $_2$
ON=CH (C_6H_5)
$ON=C(CH_3)C_6H_5$
$OCH_2(2,6-C1-C_6H_3)$
OCH ₂ (C=CH ₂) CH ₃
OCH2-CH2
CH ₂
4F-C ₆ H ₄
4C1-C6H4
4Br-C ₆ H ₄
U -1
2-pyridyl
· -
2-pyridyl
2-pyridyl 2-furyl
2-pyridyl 2-furyl 2-thiazolyl
2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl
2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl 0-2(3CF ₃ -C ₅ H ₃ N)
2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl 0-2(3CF ₃ -C ₅ H ₃ N) 0-2Cl-6CF ₃ -C ₆ H ₃ R ¹ =OCF ₃ , R ² =CO ₂ H
2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl 0-2(3CF ₃ -C ₅ H ₃ N) 0-2Cl-6CF ₃ -C ₆ H ₃
2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl 0-2(3CF ₃ -C ₅ H ₃ N) 0-2Cl-6CF ₃ -C ₆ H ₃ R ¹ =OCF ₃ , R ² =CO ₂ H
2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl 0-2(3CF ₃ -C ₅ H ₃ N) 0-2Cl-6CF ₃ -C ₆ H ₃ R ¹ =OCF ₃ , R ² =CO ₂ H R ³
2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl 0-2(3CF ₃ -C ₅ H ₃ N) 0-2Cl-6CF ₃ -C ₆ H ₃ R ¹ =OCF ₃ , R ² =CO ₂ H R ³ (CH ₂) ₂ CH ₃

(CH₂) 6CH₃

(CH₂)₇CH₃ (CH₂)₈CH₃ (CH₂)₉CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2CH2CH2CH(CH3)2 CH2CH2CH (CH3) CH2CH2CH3 CH2CH (CH3) CH2CH2CH3 CH2CH (CH2CH3) CH2CH3 CH2CH2CH2OCH2CH3 CH2CH2CH2CH2OCH3 CH2CH2CH2-S-CH2CH3 CH2CH2CH2CH2SCH3 CH2CH2CH2NHCH2CH3 CH2CF2CH(CH3)2 CH2CH2CH2CF2CH3 CH₂-cyclopropyl CH₂-cyclobutyl CH2-cyclopentyl CH2-cyclohexyl cyclopropyl cyclobutyl cyclopentyl cyclohexyl CH2OCH2CH3 CH2OCH2CH2CH3 CH2OCH2CH (CH3) 2 $CH_2OCH_2(C_6H_5)$ $CH_2OCH_2 (3CF_3-C_6H_4)$ $CH_2OCH_2(2C1-C_6H_4)$ CH_2OCH_2 (3SCH₃-C₆H₄) $CH_2OCH_2(4C1-C_6H_4)$ CH_2OCH_2 (2, 4F-C₆H₃) CH2CH2OCH2CH2CH3 CH2O (C6H5)

 $CH_2O(3CF_3-C_6H_4)$ $CH_2O(4CF_3-C_6H_4)$ $CH_2O(2C1-C_6H_4)$ CH2O (3SCH3-C6H4) $CH_2O(2CH_3-C_6H_4)$ $CH_2O(4C1-C_6H_4)$ $CH_2O(2, 4C1-C_6H_3)$ CH2SCH2CH3 CH2SCH2CH2CH3 CH2SCH2CH (CH3) 2 CH₂SCH₂ (C₆H₅) CH_2SCH_2 (3CF₃-C₆H₄) CH₂S (2C1-C₆H₄) $CH_2S(4CH_3-C_6H_4)$ $CH_2S(2, 4C1-C_6H_3)$ CH2S (3SCH3-C6H4) $CH_2S(2,6C1-C_6H_3)$ CH₂S (C₆H₅) $CH_2S(3CF_3-C_6H_4)$ $CH_2S(2C1-C_6H_4)$ CH2S (4CH3-C6H4) $CH_2S(2,6C1-C_6H_3)$ $CH_2S(2,4C1-C_6H_3)$ CH2NHCH2CH3 CH2NHCH2CH2CH3 CH2NHCH2C (C6H5) CH2NHCH2CH (CH3) 2 CH_2NHCH_2 (3CF₃-C₆H₄) $CH_2NHCH_2(2C1-C_6H_4)$ $CH_2NH(C_6H_5)$ $CH_2NH(2C1-C_6H_4)$ $CH_2N(CH_3)(2C1-C_6H_4)$ OCH2CH2CH3 OCH₂ (CH₂)₂CH₃ OCH₂ (CH₂) 3CH₃

	OCH ₂ (CH ₂) ₅ CH ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)	2,4C1-C6H
	OCH ₂ C (C ₆ H ₅)	NHCH ₂ (2C1-C ₆ H ₄)	2,6C1-C ₆ H
	OCH ₂ (3CF ₃ -C ₆ H ₄)	NHCH ₂ (4CH ₃ -C ₆ H ₄)	2SCH3-C6H
	OCH ₂ (2C1-C ₆ H ₄)	NHCH ₂ (2, 4C1-C ₆ H ₃)	CH ₂ (C ₆ H ₅)
	OCH ₂ CH (CH ₃) ₂	инсн ₂ (2, 6С1-С ₆ н ₃)	CH ₂ (3CF ₃ -
	O(C ₆ H ₅)	ин (С ₆ н ₅)	CH ₂ (2C1-C
	O(3CF3-C6H4)	NH (3CF ₃ -C ₆ H ₄)	CH ₂ (4C1-C
	O(2C1-C ₆ H ₄)	NH (2C1-C ₆ H ₄)	CH ₂ (2, 4C1
	O(4SCH3-C6H4)	NH (3CH ₃ -C ₆ H ₄)	СH ₂ (3SCH ₃
	O(2,4C1-C ₆ H ₃)	NH (2, 4C1-C ₆ H ₃)	Сн ₂ (зосн ₃ -
	SCH ₂ CH ₂ CH ₃	NH (2,6C1-C ₆ H ₃)	CH ₂ (3C1-C,
	SCH ₂ (CH ₂) ₂ CH ₃	N(CH ₃) (3CF ₃ -C ₆ H ₄)	CH ₂ (2, 6F-0
	SCH ₂ (CH ₂) ₃ CH ₃	N(CH ₃)CH ₂ CH ₂ CH ₃	CH ₂ (2,6C1-
	SCH ₂ (CH ₂) ₅ CH ₃	N (CH ₂) 4	CH ₂ (3, 4F-0
	SCH ₂ (C ₆ H ₅)	N (CH ₂) ₅	CH2-Si(CH3
	SCH2 (3SCH3-C6H4)	N(CH ₂) ₆	ON=C (CH3)
	SCH ₂ (20CH ₃ -C ₆ H ₄)	м (сн ₂ сн ₂ -осн ₂ сн ₂) ₂	ON=CH (C6H
	SCH ₂ (2C1-C ₆ H ₄)	CH ₂ CO ₂ CH ₃	ON=C (CH3) C
	SCH ₂ (2, 4-C ₆ H ₃)	сн ₂ сн ₂ со ₂ сн ₂ сн ₃	осн ₂ (2, 6-с
	SCH ₂ (4CF ₃ -C ₆ H ₄)	сн ₂ сн ₂ со ₂ сн ₃	OCH2 (C=CH2
	S (CH ₃) 3	CH ₂ CH ₂ OCH ₂ CH ₃	осн ₂ -сн
	SCH ₂ CH (CH ₃) ₂	CH ₂ CH ₂ SCH ₂ CH ₃	C
	S (C ₆ H ₅)	CH ₂ CH ₂ -NHCH ₂ CH ₃	4F-C ₆ H ₄
	S(3CF ₃ -C ₆ H ₄)	СH ₂ CH ₂ N (СH ₃) СH ₂ CH ₃	4C1-C6H4
	S(2C1-C ₆ H ₄)	CH=CH (CH ₃) ₂	4Br-C ₆ H ₄
	s (40CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH=CH ₂	2-pyridyl
	S(2,4C1-C ₆ H ₃)	CH ₂ CH=CH-CH ₃	2-furyl
	S(2,6F-C ₆ H ₃)	CH=CH-CH ₂ CH ₂ -Cl	2-thiazoly
	2 (3CH ₃ -C ₆ H ₄)	CH ₂ CH ₂ CH-C1CH ₂ -C1	2-imidazol
	NHCH ₂ CH ₂ CH ₃	С ₆ н ₅	0-2 (3CF ₃ -C
	NHCH ₂ (CH ₂) ₂ CH ₃	200	0-2C1-6CF ₃
	NHCH ₂ (CH ₂) ₄ CH ₃	2C1-C ₆ H ₄	J
1	NHCH ₂ (CH ₂) ₅ CH ₃	3CH ₃ -C ₆ H ₄	R1=OCF2
]	NHCH ₂ CH (CH ₃) ₂	30CH ₃ -С ₆ H ₄	R ³
1	NHCH ₂ (C ₆ H ₅)	2CF ₃ -C ₆ H ₄	(CH ₂) ₂ CH ₃
		·	

2,6C1-C₆H₃ 2SCH3-C6H4 СH₂ (С₆H₅) CH₂ (3CF₃-C₆H₄) CH₂ (2C1-C₆H₄) CH₂ (4C1-C₆H₄) CH₂ (2, 4C1-C₆H₃) СH₂ (3SCH₃-С₆H₄) CH₂ (30CH₃-C₆H₄) CH2 (3C1-C6H4) $CH_2(2,6F-C_6H_3)$ СH₂ (2,6С1-С6H₃) CH₂ (3, 4F-C₆H₃) СH2-Si(СH3)3 ON=C (CH3) 2 $ON=CH(C_6H_5)$ ON=C (CH3) C6H5 OCH₂ (2,6-C1-C₆H₃) осн₂ (с=сн₂) сн₃ осн₂-сн^{Сн₂} 4F-C6H4 4C1-C6H4 $4Br-C_6H_4$ 2-pyridyl 2-furyl 2-thiazolyl 2-imidazolyl $0-2 (3CF_3-C_5H_3N)$ 0-2C1-6CF3-C6H3 $R^1 = OCF_2H$, $R^2 = CO_2H$ R3

2,4C1-C6H3

(CH ₂) ₃ CH ₃	CH2OCH2 (4C1-C6H4)	$CH_2N(CH_3)$ (2C1-C ₆ H ₄)
(CH ₂) ₄ CH ₃	CH ₂ OCH ₂ (2, 4F-C ₆ H ₃)	OCH ₂ CH ₂ CH ₃
(CH ₂) ₅ CH ₃	CH2CH2OCH2CH2CH3	осн ₂ (сн ₂) ₂ сн ₃
(CH ₂) ₆ CH ₃	CH ₂ O(C ₆ H ₅)	осн ₂ (сн ₂) ₃ сн ₃
(CH ₂) ₇ CH ₃	CH ₂ O (3CF ₃ -C ₆ H ₄)	осн ₂ (сн ₂) ₅ сн ₃
(CH ₂) ₈ CH ₃	CH ₂ O (4CF ₃ -C ₆ H ₄)	осн ₂ с (с ₆ н ₅)
(CH ₂) ₉ CH ₃	CH ₂ O(2C1-C ₆ H ₄)	OCH ₂ (3CF ₃ -C ₆ H ₄)
CH ₂ CH (CH ₃) ₂	CH ₂ O(3SCH ₃ -C ₆ H ₄)	OCH ₂ (2C1-C ₆ H ₄)
CH ₂ CH ₂ CH (CH ₃) ₂	CH ₂ O (2CH ₃ -C ₆ H ₄)	осн ₂ сн (сн ₃) ₂
$\mathrm{CH_2CH_2CH_2CH}$ ($\mathrm{CH_3}$) 2	CH ₂ O(4C1-C ₆ H ₄)	O(C ₆ H ₅)
$CH_2CH_2CH(CH_3)CH_2CH_2CH_3$	CH ₂ O(2,4C1-C ₆ H ₃)	O(3CF3-C6H4)
CH2CH (CH3) CH2CH2CH3	сн ₂ sсн ₂ сн ₃	O(2C1-C ₆ H ₄)
CH2CH (CH2CH3) CH2CH3	CH ₂ SCH ₂ CH ₂ CH ₃	O(4SCH3-C6H4)
CH2CH2CH2OCH2CH3	CH2SCH2CH(CH3)2	O(2,4C1-C6H3)
$\mathrm{CH}_2\mathrm{CH}_2\mathrm{CH}_2\mathrm{CH}_2\mathrm{OCH}_3$	сн ₂ sсн ₂ (с ₆ н ₅)	SCH2CH2CH3
CH2CH2CH2-S-CH2CH3	CH ₂ SCH ₂ (3CF ₃ -C ₆ H ₄)	SCH ₂ (CH ₂) ₂ CH ₃
сн ₂ сн ₂ сн ₂ сн ₂ sсн ₃	CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (CH ₂) ₃ CH ₃
CH2CH2CH2NHCH2CH3	CH ₂ S (4CH ₃ -C ₆ H ₄)	SCH ₂ (CH ₂) ₅ CH ₃
CH2CF2CH (CH3)2	CH ₂ S (2, 4C1-C ₆ H ₃)	SCH ₂ (C ₆ H ₅)
CH2CH2CH2CF2CH3	CH ₂ S (3SCH ₃ -C ₆ H ₄)	SCH2 (3SCH3-C6H4)
CH ₂ -cyclopropyl	CH ₂ S (2,6C1-C ₆ H ₃)	SCH ₂ (20CH ₃ -C ₆ H ₄)
CH ₂ -cyclobutyl	СH ₂ S (С ₆ H ₅)	SCH ₂ (2C1-C ₆ H ₄)
CH2-cyclopentyl	CH ₂ S (3CF ₃ -C ₆ H ₄)	SCH ₂ (2, 4-C ₆ H ₃)
CH2-cyclohexyl	CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (4CF ₃ -C ₆ H ₄)
cyclopropyl	CH ₂ S (4CH ₃ -C ₆ H ₄)	S (CH ₃) ₃
cyclobutyl	CH ₂ S(2,6C1-C ₆ H ₃)	SCH ₂ CH (CH ₃) ₂
cyclopentyl	CH ₂ S(2,4C1-C ₆ H ₃)	s (c ₆ H ₅)
cyclohexyl	CH ₂ NHCH ₂ CH ₃	S(3CF3-C6H4)
CH ₂ OCH ₂ CH ₃	CH2NHCH2CH2CH3	S(2C1-C6H4)
CH2OCH2CH2CH3	CH ₂ NHCH ₂ C(C ₆ H ₅)	S(40CH3-C6H4)
${\rm CH_2OCH_2CH}$ (${\rm CH_3}$) 2	CH ₂ NHCH ₂ CH (CH ₃) ₂	S(2,4C1-C6H3)
CH_2OCH_2 (C_6H_5)	CH2NHCH2 (3CF3-C6H4)	S(2,6F-C ₆ H ₃)
$\mathrm{CH_2OCH_2}\left(\mathrm{3CF_3-C_6H_4}\right)$	CH ₂ NHCH ₂ (2C1-C ₆ H ₄)	2 (3CH ₃ -C ₆ H ₄)
CH_2OCH_2 (2C1- C_6H_4)	CH ₂ NH (C ₆ H ₅)	NHCH2CH2CH3
CH2OCH2 (3SCH3-C6H4)	CH ₂ NH (2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₂ CH ₃

NHCH_2 (CH_2) $_4\mathrm{CH}_3$
NHCH ₂ (CH ₂) ₅ CH ₃
NHCH2CH (CH3)2
NHCH ₂ (C ₆ H ₅)
$NHCH_2$ (3CF ₃ -C ₆ H ₄)
NHCH ₂ (2C1-C ₆ H ₄)
NHCH ₂ (4CH ₃ -C ₆ H ₄)
$NHCH_2(2,4C1-C_6H_3)$
$NHCH_2(2,6C1-C_6H_3)$
NH (C ₆ H ₅)
NH (3CF ₃ -C ₆ H ₄)
NH (2C1-C ₆ H ₄)
NH (3CH3-C6H4)
NH(2,4C1-C ₆ H ₃)
NH(2,6C1-C6H3)
$N(CH_3)(3CF_3-C_6H_4)$
N(CH3)CH2CH2CH3
N (CH ₂) ₄
N (CH ₂) ₅
N(CH ₂) ₆
$N(CH_2CH_2-OCH_2CH_2)_2$
CH ₂ CO ₂ CH ₃
$\mathrm{CH_2CH_2CO_2CH_2CH_3}$
$\mathrm{CH_2CH_2CO_2CH_3}$
CH2CH2OCH2CH3
CH ₂ CH ₂ SCH ₂ CH ₃
CH2CH2-NHCH2CH3
$\mathrm{CH_2CH_2N}\left(\mathrm{CH_3}\right)\mathrm{CH_2CH_3}$
CH=CH(CH ₃) ₂
CH2CH2CH=CH2
CH ₂ CH=CH-CH ₃
CH=CH-CH ₂ CH ₂ -Cl
CH2CH2CH-C1CH2-C1
C ₆ H ₅
3CF C - U -

3CF3-C6H4

```
2C1-C6H4
 3CH3-C6H4
                                             R3
 30CH3-C6H4
                                              (CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>
 2CF3-C6H4
 2,4C1-C6H3
                                              (CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>
                                              (CH<sub>2</sub>)<sub>4</sub>CH<sub>3</sub>
 2,6C1-C6H3
 2SCH3-C6H4
                                              (CH<sub>2</sub>)<sub>5</sub>CH<sub>3</sub>
 CH_2(C_6H_5)
                                              (CH<sub>2</sub>) 6CH<sub>3</sub>
 CH_2 (3CF_3 - C_6H_4)
                                              (CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>
 CH_2(2C1-C_6H_4)
                                              (CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>
 CH_2(4C1-C_6H_4)
                                              (CH<sub>2</sub>) <sub>9</sub>CH<sub>3</sub>
 CH_2(2,4C1-C_6H_3)
CH<sub>2</sub> (3SCH<sub>3</sub>-C<sub>6</sub>H<sub>4</sub>)
CH_2(30CH_3-C_6H_4)
CH<sub>2</sub> (3C1-C<sub>6</sub>H<sub>4</sub>)
 CH_2(2,6F-C_6H_3)
CH<sub>2</sub> (2,6C1-C<sub>6</sub>H<sub>3</sub>)
CH_2(3, 4F-C_6H_3)
CH2-Si (CH3) 3
ON=C(CH_3)_2
ON=CH (C6H5)
ON=C(CH_3)C_6H_5
OCH_2(2, 6-C1-C_6H_3)
OCH_2 (C=CH<sub>2</sub>) CH_3
осн<sub>2</sub>-сн
4F-C6H4
4C1-C_6H_4
                                             cyclopropyl
4Br-C6H4
                                             cyclobutyl
2-pyridyl
                                             cyclopentyl
2-furyl
                                             cyclohexyl
2-thiazolyl
                                             CH2OCH2CH3
2-imidazolyl
0-2 (3CF_3-C_5H_3N)
0-2C1-6CF3-C6H3
```

```
R^1 = NO_2, R^2 = CO_2H
CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH<sub>2</sub>CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH2CH2CH2CH(CH3)2
CH2CH2CH (CH3) CH2CH2CH3
CH2CH (CH3) CH2CH2CH3
CH2CH (CH2CH3) CH2CH3
CH2CH2CH2OCH2CH3
CH2CH2CH2CH2OCH3
CH2CH2CH2-S-CH2CH3
CH2CH2CH2CH2SCH3
CH2CH2CH2NHCH2CH3
CH<sub>2</sub>CF<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH2CH2CH2CF2CH3
CH<sub>2</sub>-cyclopropyl
CH2-cyclobutyl
CH2-cyclopentyl
CH2-cyclohexyl
CH2OCH2CH2CH3
CH2OCH2CH(CH3)2
```

$CH_2OCH_2(C_6H_5)$	CH ₂ NHCH ₂ (3CF ₃ -C ₆ H ₄)	S(2,6F-C ₆ H ₃)
$CH_2OCH_2 (3CF_3 - C_6H_4)$	CH ₂ NHCH ₂ (2C1-C ₆ H ₄)	2 (3CH ₃ -C ₆ H ₄)
CH_2OCH_2 (2Cl- C_6H_4)	СH ₂ NH (С ₆ H ₅)	NHCH2CH2CH3
$CH_2OCH_2 (3SCH_3-C_6H_4)$	CH ₂ NH (2C1-C ₆ H ₄)	NHCH ₂ (CH ₂) ₂ CH ₃
CH_2OCH_2 (4C1- C_6H_4)	$CH_2N(CH_3)(2C1-C_6H_4)$	NHCH ₂ (CH ₂) ₄ CH ₃
CH_2OCH_2 (2, 4F- C_6H_3)	OCH ₂ CH ₂ CH ₃	NHCH ₂ (CH ₂) 5CH ₃
$CH_2CH_2OCH_2CH_2CH_3$	осн ₂ (сн ₂) ₂ сн ₃	NHCH ₂ CH (CH ₃) ₂
CH ₂ O(C ₆ H ₅)	осн ₂ (сн ₂) ₃ сн ₃	инсн ₂ (С ₆ н ₅)
$CH_2O(3CF_3-C_6H_4)$	OCH ₂ (CH ₂) ₅ CH ₃	NHCH ₂ (3CF ₃ -C ₆ H ₄)
$CH_2O(4CF_3-C_6H_4)$	OCH ₂ C (C ₆ H ₅)	NHCH ₂ (2C1-C ₆ H ₄)
$CH_2O(2C1-C_6H_4)$	OCH ₂ (3CF ₃ -C ₆ H ₄)	NHCH ₂ (4CH ₃ -C ₆ H ₄)
CH ₂ O(3SCH ₃ -C ₆ H ₄)	OCH ₂ (2C1-C ₆ H ₄)	NHCH ₂ (2,4C1-C ₆ H ₃)
$CH_2O(2CH_3-C_6H_4)$	осн ₂ сн (сн ₃) ₂	NHCH ₂ (2,6C1-C ₆ H ₃)
$CH_2O(4C1-C_6H_4)$	O(C ₆ H ₅)	ин (С ₆ н ₅)
CH ₂ O(2,4C1-C ₆ H ₃)	O(3CF ₃ -C ₆ H ₄)	NH (3CF ₃ -C ₆ H ₄)
CH ₂ SCH ₂ CH ₃	O(2C1-C6H4)	NH (2C1-C ₆ H ₄)
CH2SCH2CH2CH3	O(4SCH3-C6H4)	ин (ЗСН _З -С ₆ Н ₄)
CH2SCH2CH(CH3)2	O(2,4C1-C ₆ H ₃)	NH (2, 4C1-C ₆ H ₃)
. CH ₂ SCH ₂ (С ₆ H ₅)	SCH2CH2CH3	NH (2, 6С1-С ₆ Н ₃)
CH_2SCH_2 (3CF ₃ -C ₆ H ₄)	scн ₂ (сн ₂) ₂ сн ₃	N(CH ₃) (3CF ₃ -C ₆ H ₄)
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (CH ₂) 3CH ₃	и (Сн ₃) Сн ₂ Сн ₂ Сн ₃
$CH_2S(4CH_3-C_6H_4)$	SCH ₂ (CH ₂) ₅ CH ₃	N (CH ₂) ₄
CH ₂ S (2, 4C1-C ₆ H ₃)	SCH ₂ (C ₆ H ₅)	N (CH ₂) 5
$CH_2S(3SCH_3-C_6H_4)$	SCH ₂ (3SCH ₃ -C ₆ H ₄)	N (CH ₂) 6
$CH_2S(2,6C1-C_6H_3)$	SCH ₂ (20CH ₃ -C ₆ H ₄)	и (сн ₂ сн ₂ -осн ₂ сн ₂) 2
$CH_2S(C_6H_5)$	SCH ₂ (2C1-C ₆ H ₄)	СH ₂ CO ₂ CH ₃
$CH_2S(3CF_3-C_6H_4)$	SCH ₂ (2,4-C ₆ H ₃)	CH2CH2CO2CH2CH3
CH ₂ S (2C1-C ₆ H ₄)	SCH ₂ (4CF ₃ -C ₆ H ₄)	CH ₂ CH ₂ CO ₂ CH ₃
CH ₂ S (4CH ₃ -C ₆ H ₄)	s (CH ₃) ₃	CH ₂ CH ₂ OCH ₂ CH ₃
$CH_2S(2,6C1-C_6H_3)$	SCH ₂ CH (CH ₃) ₂	Сн ₂ Сн ₂ sсн ₂ сн ₃
$CH_2S(2, 4C1-C_6H_3)$	S(C ₆ H ₅)	CH ₂ CH ₂ -NHCH ₂ CH ₃
CH ₂ NHCH ₂ CH ₃	S(3CF ₃ -C ₆ H ₄)	CH2CH2N (CH3) CH2CH3
CH2NHCH2CH2CH3	s(2C1-C ₆ H ₄)	CH=CH (CH ₃) ₂
CH ₂ NHCH ₂ C (C ₆ H ₅)	S(40CH3-C6H4)	CH ₂ CH ₂ CH=CH ₂
CH ₂ NHCH ₂ CH (CH ₃) ₂	S(2,4C1-C ₆ H ₃)	CH ₂ CH=CH-CH ₃
	•	

C₆H₅

3CF3-C6H4 CH=CH-CH2CH2-Cl R3 CH2CH2CH-C1CH2-C1 2C1-C6H4 C₆H₅ $R^1=Br$, $R^2=CO_2CH_3$ 3CF3-C6H4 R3 2C1-C6H4 (CH₂)₃CH₃ 3CH3-C6H4 CH2CH (CH3)2 30CH3-C6H4 CH2CH2CH(CH3)2 2CF3-C6H4 2,4C1-C6H3 CH2-cyclopentyl 2,6C1-C₆H₃ $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 2SCH3-C6H4 CH2NHCH2CH (CH3) 2 $CH_2(C_6H_5)$ C6H5 $CH_2 (3CF_3 - C_6H_4)$ OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 $CH_2 (2C1-C_6H_4)$ $CH_2 (4C1-C_6H_4)$ C₆H₅ $CH_2(2,4C1-C_6H_3)$ 3CF3-C6H4 \mathbb{R}^3 2C1-C6H4 $CH_2 (3SCH_3 - C_6H_4)$ CH_2 (30 CH_3 - C_6H_4) $R^1=I$, $R^2=CO_2CH_3$ $CH_2 (3C1-C_6H_4)$ R3 $CH_2(2, 6F-C_6H_3)$ (CH₂)₃CH₃ CH_2 (2, 6C1-C₆H₃) CH2CH (CH3)2 $CH_2(3, 4F-C_6H_3)$ CH2CH2CH(CH3)2 $R^1=C1, R^2=CO_2CH_3$ CH2-cyclopentyl \mathbb{R}^3 $CH_2O(C_6H_5)$ (CH₂)₃CH₃ CH2SCH2CH (CH3) 2 CH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 C₆H₅ OCH₂CH (CH₃)₂ CH2CH2CH(CH3)2 NHCH₂CH (CH₃)₂ CH2-cyclopentyl $CH_{2}O(C_{6}H_{5})$ C₆H₅ CH2SCH2CH(CH3)2 3CF3-C6H4 \mathbb{R}^3 CH2NHCH2CH(CH3)2 2C1-C6H4 OCH2CH (CH3) 2 NHCH2CH (CH3) 2

 $R^1 = OCH_3$, $R^2 = CO_2CH_3$ (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 3CF3-C6H4 2C1-C6H4 R^1 =OCF₃, R^2 =CO₂CH₃ (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 3CF3-C6H4 2C1-C6H4 $R^1 = OCF_2H$, $R^2 = CO_2CH_3$ (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2

CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = NO_2$, $R^2 = CO_2CH_3$ \mathbb{R}^3 (CH₂)₃CH₃ СH₂CH (СH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=C1$, $R^2=CO_2CH_2CH_3$ <u>R</u>3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2

NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=Br$, $R^2=CO_2CH_2CH_3$ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=I$, $R^2=CO_2CH_2CH_3$ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

 $R^1 = OCH_3$, $R^2 = CO_2CH_2CH_3$ \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH (CH3) 2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^{1}=OCF_{3}, R^{2}=CO_{2}CH_{2}CH_{3}$ R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCF₂H, R^2 =CO₂CH₂CH₃ R3 (CH₂) 3CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2

OCH2CH (CH3) 2

NHCH2CH (CH3)2 R^1 =OCH₃, R^2 =CHO CH2-cyclopentyl R3 $CH_2O(C_6H_5)$ C₆H₅ CH2SCH2CH (CH3) 2 3CF3-C6H4 (CH₂)₃CH₃2C1-C6H4 CH₂CH (CH₃)₂ CH2NHCH2CH(CH3)2 OCH2CH (CH3) 2 CH2CH2CH(CH3)2 $R^1=Br$, $R^2=CHO$ CH2-cyclopentyl NHCH2CH (CH3) 2 R3 CH₂O (C₆H₅) C₆H₅ (CH₂)₃CH₃ CH2SCH2CH(CH3)2 3CF3-C6H4 CH₂CH (CH₃)₂ CH2NHCH2CH (CH3)2 2C1-C6H4 CH2CH2CH(CH3)2 OCH₂CH (CH₃)₂ $R^1 = NO_2$, $R^2 = CO_2CH_2CH_3$ CH2-cyclopentyl NHCH2CH (CH3) 2 \mathbb{R}^3 CH2O (C6H5) C6H5 CH2SCH2CH (CH3) 2 (CH₂)₃CH₃ 3CF3-C6H4 2C1-C6H4 CH2NHCH2CH (CH3) 2 CH2CH (CH3) 2 CH2CH2CH(CH3)2 OCH2CH (CH3) 2 R^1 =OCF₃, R^2 =CHO NHCH2CH (CH3) 2 CH2-cyclopentyl R3 $CH_2O(C_6H_5)$ C₆H₅ CH2SCH2CH (CH3) 2 3CF3-C6H4 (CH₂)₃CH₃ CH2NHCH2CH (CH3) 2 2C1-C6H4 CH2CH (CH3) 2 OCH2CH (CH3) 2 CH2CH2CH(CH3)2 NHCH2CH (CH3) 2 $R^1=I$, $R^2=CHO$ CH2-cyclopentyl R³ C₆H₅ $CH_2O(C_6H_5)$ (CH₂)₃CH₃ CH2SCH2CH (CH3) 2 3CF3-C6H4 CH₂CH (CH₃)₂ CH2NHCH2CH (CH3) 2 2C1-C6H4 CH2CH2CH(CH3)2 OCH₂CH (CH₃)₂ $R^1=C1$, $R^2=CHO$ CH2-cyclopentyl NHCH₂CH (CH₃)₂ \mathbb{R}^3 CH₂O (C₆H₅) C₆H₅ CH2SCH2CH (CH3) 2 (CH₂)₃CH₃ 3CF3-C6H4 2C1-C6H4 CH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 CH2CH2CH(CH3)2 OCH2CH (CH3) 2 R^1 =OCF₂H, R^2 =CHO NHCH2CH (CH3)2 CH2-cyclopentyl R^3 $CH_2O(C_6H_5)$ C₆H₅ CH2SCH2CH (CH3) 2 3CF3-C6H4 (CH₂)₃CH₃2C1-C6H4 CH2NHCH2CH (CH3) 2 CH₂CH (CH₃)₂

CH2CH2CH(CH3)2

 $\begin{array}{c} {\rm CH_2-cyclopentyl} \\ {\rm CH_2O\,(C_6H_5)} \\ {\rm CH_2SCH_2CH\,(CH_3)\,2} \\ {\rm CH_2NHCH_2CH\,(CH_3)\,2} \\ {\rm OCH_2CH\,(CH_3)\,2} \\ {\rm NHCH_2CH\,(CH_3)\,2} \\ {\rm NHCH_2CH\,(CH_3)\,2} \\ {\rm C_6H_5} \\ {\rm 3CF_3-C_6H_4} \\ {\rm 2Cl-C_6H_4} \\ \\ {\rm R^1=NO_2,\ R^2=CHO} \\ {\rm 3CH_2CH\,(CH_3)\,2} \\ {\rm C_3CH_2CH\,(CH_3)\,2} \\ {\rm C_3CH_2CH\,(CH_3)\,$

R-ENO₂, R-ECHO

R³

(CH₂)₃CH₃

CH₂CH(CH₃)₂

CH₂CH₂CH(CH₃)₂

CH₂-cyclopentyl

CH₂O(C₆H₅)

CH₂SCH₂CH(CH₃)₂

CH₂NHCH₂CH(CH₃)₂

NHCH₂CH(CH₃)₂

NHCH₂CH(CH₃)₂

C₆H₅

3CF3-C6H4

2C1-C6H4

 R^1 =C1, R^2 =C=CH R^3 $(CH_2)_3CH_3$ $CH_2CH_2CH_2CH_3)_2$ $CH_2CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_3CH_3CH_3CH_3$ $CH_3CH_3CH_3CH_3CH_3$ $CH_3CH_3CH_3CH_3CH_3CH_3$

NHCH2CH (CH3) 2

C6H5 3CF3-C6H4 2C1-C6H4 $R^1=Br$, $R^2=C=CH$ _R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=I$, $R^2=C=CH$

 $R^{1}=I$, $R^{2}=C=C$ R^{3} $(CH_{2})_{3}CH_{3}$ $CH_{2}CH_{2}CH_{2}CH_{3})_{2}$ $CH_{2}CH_{2}CH_{2}CH_{3}$ $CH_{2}CH_{2}CH_{3}$ $CH_{2}CH_{2}CH_{3}$ $CH_{2}CH_{2}CH_{3}$ $CH_{2}CH_{2}CH_{3}$ $CH_{2}CH_{3}CH_{2}CH_{3}$ $CH_{2}CH_{3}CH_{3}$ $CH_{2}CH_{3}CH_{3}$ $CH_{3}CH_{3}CH_{3}CH_{3}$ $CH_{3}C$

3CF3-C6H4

2C1-C6H4

 R^1 =OCH₃, R^2 =C=CH R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCF₃, R^2 =C=CH R3 (CH₂) 3CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCF₂H, R^2 =C=CH R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂

CH2CH2CH(CH3)2

CH2-cyclopentyl
CH ₂ O(C ₆ H ₅)
CH2SCH2CH(CH3)2
CH2NHCH2CH(CH3)2
OCH ₂ CH (CH ₃) ₂
NHCH2CH (CH3) 2
С ₆ н ₅
3CF3-C6H4
2C1-C6H4
$R^1=NO_2$, $R^2=C=CH$
<u>R</u> ³
(CH ₂) ₃ CH ₃
СH ₂ CH (СH ₃) ₂
CH ₂ CH ₂ CH (CH ₃) ₂
CH ₂ -cyclopentyl
$CH_2O(C_6H_5)$
CH2SCH2CH (CH3) 2
CH ₂ NHCH ₂ CH (CH ₃) ₂
OCH ₂ CH (CH ₃) ₂
NHCH ₂ CH (CH ₃) ₂
C ₆ H ₅
3CF ₃ -C ₆ H ₄
2C1-C ₆ H ₄
_12
R^1 =Cl, R^2 =CH=N-OH
R ³
(CH ₂) ₃ CH ₃
CH ₂ CH (CH ₃) ₂
CH ₂ CH ₂ CH (CH ₃) ₂
CH ₂ -cyclopentyl
CH ₂ O (C ₆ H ₅)

CH2SCH2CH (CH3) 2

CH2NHCH2CH(CH3)2

OCH2CH (CH3) 2

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NHCH2CH (CH3) 2
 C<sub>6</sub>H<sub>5</sub>
3CF3-C6H4
2C1-C6H4
      R^1=Br, R^2=CH=N-OH
<sub>R</sub>3
 (CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>
CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH2CH2CH(CH3)2
CH2-cyclopentyl
CH<sub>2</sub>O (C<sub>6</sub>H<sub>5</sub>)
CH2SCH2CH(CH3)2
CH2NHCH2CH(CH3)2
OCH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
NHCH2CH (CH3) 2
C6H5
3CF3-C6H4
2C1-C6H4
       R^1=I, R^2=CH=N-OH
R3
 (CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>
CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH2CH2CH(CH3)2
CH2-cyclopentyl
CH<sub>2</sub>O (C<sub>6</sub>H<sub>5</sub>)
CH2SCH2CH (CH3) 2
CH2NHCH2CH (CH3) 2
OCH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
NHCH2CH (CH3) 2
C<sub>6</sub>H<sub>5</sub>
3CF3-C6H4
2C1-C6H4
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R^1=OCH<sub>3</sub>, R^2=CH=N-OH
 ₽3
 (CH_2)_3CH_3
 CH2CH (CH3) 2
 CH2CH2CH(CH3)2
CH2-cyclopentyl
CH20 (C6H5)
CH2SCH2CH(CH3)2
CH2NHCH2CH (CH3) 2
OCH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
NHCH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
C6H5
3CF3-C6H4
2C1-C6H4
    R^1=OCF<sub>3</sub>, R^2=CH=N-OH
R3
(CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>
CH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
CH2CH2CH(CH3)2
CH2-cyclopentyl
CH<sub>2</sub>O (C<sub>6</sub>H<sub>5</sub>)
CH2SCH2CH(CH3)2
CH2NHCH2CH(CH3)2
OCH<sub>2</sub>CH (CH<sub>3</sub>)<sub>2</sub>
NHCH2CH (CH3) 2
C6H5
3CF3-C6H4
2C1-C6H4
  R^1=OCF<sub>2</sub>H, R^2=CH=N-OH
\mathbb{R}^3
(CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>
СH<sub>2</sub>CH (СH<sub>3</sub>)<sub>2</sub>
CH2CH2CH(CH3)2
```

OCH2CH (CH3) 2

NHCH2CH (CH3)2 R^1 =OCH₃, R^2 =CH=N-OCH₃ CH2-cyclopentyl \mathbb{R}^3 CH2O (C6H5) С₆н₅ CH2SCH2CH (CH3) 2 3CF3-C6H4 (CH2) 3CH3 CH2NHCH2CH (CH3) 2 2C1-C6H4 CH2CH (CH3) 2 OCH2CH (CH3) 2 CH2CH2CH(CH3)2 $R^1=Br$, $R^2=CH=N-OCH_3$ NHCH2CH (CH3) 2 CH2-cyclopentyl R^3 CH20 (C6H5) C₆H₅ (CH₂)₃CH₃ CH2SCH2CH (CH3) 2 3CF3-C6H4 CH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 2C1-C6H4 CH2CH2CH(CH3)2 OCH₂CH (CH₃)₂ $R^1=NO_2$, $R^2=CH=N-OH$ CH2-cyclopentyl NHCH2CH (CH3) 2 R^3 CH2O (C6H5) C6H5 CH2SCH2CH (CH3) 2 3CF3-C6H4 (CH₂)₃CH₃ CH2NHCH2CH (CH3) 2 CH2CH (CH3) 2 2C1-C6H4 CH2CH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 R^1 =OCF₃, R^2 =CH=N-OCH₃ CH2-cyclopentyl R3 CH2O (C6H5) C₆H₅ CH2SCH2CH (CH3) 2 3CF3-C6H4 (CH₂)₃CH₃ 2C1-C6H4 CH2NHCH2CH (CH3) 2 CH₂CH (CH₃)₂ OCH2CH (CH3) 2 CH2CH2CH(CH3)2 $R^1=I$, $R^2=CH=N-OCH_3$ NHCH2CH (CH3) 2 CH2-cyclopentyl R3 C₆H₅ CH₂O (C₆H₅) 3CF3-C6H4 (CH₂)₃CH₃ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 CH2CH (CH3) 2 2C1-C6H4 CH2CH2CH(CH3)2 OCH2CH (CH3) 2 $R^1=C1$, $R^2=CH=N-OCH_3$ CH2-cyclopentyl NHCH2CH (CH3) 2 \mathbb{R}^3 CH2O (C6H5) C₆H₅ CH2SCH2CH (CH3) 2 (CH₂)₃CH₃ 3CF3-C6H4 CH₂CH (CH₃)₂ CH2NHCH2CH (CH3)2 2C1-C6H4 CH2CH2CH (CH3) 2 OCH2CH (CH3) 2 CH2-cyclopentyl NHCH2CH (CH3) 2 R^1 =OCF₂H, R^2 =CH=N-OCH₃ \mathbb{R}^3 CH2O (C6H5) C₆H₅ CH2SCH2CH (CH3) 2 3CF3-C6H4 (CH₂)₃CH₃ 2C1-C6H4 CH2NHCH2CH (CH3) 2 CH2CH (CH3) 2

CH2CH2CH(CH3)2

NHCH2CH (CH3) 2 R^1 =OCH₃, CH2-cyclopentyl R²=CH=N-OCH₂CH₃ CH2O (C6H5) C₆H₅ R3 CH2SCH2CH(CH3)2 3CF3-C6H4 CH2NHCH2CH (CH3)2 2C1-C6H4 (CH₂)₃CH₃CH2CH (CH3) 2 OCH2CH (CH3) 2 $R^1=Br$, $R^2=CH=N-OCH_2CH_3$ CH2CH2CH (CH3) 2 NHCH2CH (CH3) 2 \mathbb{R}^3 CH2-cyclopentyl C₆H₅ CH₂O (C₆H₅) 3CF3-C6H4 (CH₂) 3CH₃ 2C1-C6H4 CH2CH (CH3) 2 CH2SCH2CH(CH3)2 CH2CH2CH(CH3)2 CH2NHCH2CH (CH3) 2 $R^1=NO_2$, $R^2=CH=N-OCH_3$ CH2-cyclopentyl OCH₂CH (CH₃)₂ R3 CH2O (C6H5) NHCH2CH (CH3) 2 CH2SCH2CH (CH3) 2 (CH₂) 3CH₃ C₆H₅ CH2NHCH2CH (CH3)2 CH2CH (CH3) 2 3CF3-C6H4 2C1-C6H4 CH2CH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 CH2-cyclopentyl R^1 =OCF₃, CH2O (C6H5) C₆H₅ R²=CH=N-OCH₂CH₃ CH2SCH2CH(CH3)2 3CF3-C6H4 R3 CH2NHCH2CH (CH3)2 2C1-C6H4 (CH₂) 3CH₃ OCH2CH (CH3) 2 CH2CH (CH3) 2 $R^1=I$, $R^2=CH=N-OCH_2CH_3$ NHCH2CH (CH3) 2 CH2CH2CH(CH3)2 R3 C₆H₅ CH2-cyclopentyl 3CF3-C6H4 (CH₂) 3CH₃ CH₂O (C₆H₅) 2C1-C6H4 CH2CH (CH3) 2 CH2SCH2CH(CH3)2 CH2CH2CH(CH3)2 CH2NHCH2CH (CH3) 2 R^1 =C1, R^2 =CH=N-OCH₂CH₃ CH2-cyclopentyl OCH₂CH (CH₃)₂ R3 CH2O (C6H5) NHCH2CH (CH3) 2 CH2SCH2CH (CH3) 2 (CH2) 3CH3 C₆H₅ CH2NHCH2CH (CH3) 2 CH2CH (CH3) 2 3CF3-C6H4 OCH2CH (CH3) 2 CH2CH2CH(CH3)2 2C1-C6H4 NHCH2CH (CH3) 2 CH2-cyclopentyl CH2O (C6H5) C_6H_5 R^1 =OCF₂H, CH2SCH2CH (CH3) 2 3CF3-C6H4 R²=CH=N-OCH₂CH₃ CH2NHCH2CH (CH3) 2 2C1-C6H4 R3 OCH2CH (CH3) 2 (CH₂) 3CH₃

CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_{2}O(C_{6}H_{5})$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C_6H_5 3CF3-C6H4 2C1-C6H4 $R^1=NO_2$ R^2 =CH=N-OCH₂CH₃ R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3)2 NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 $R^1=C1$, $R^2=C(NH_2)=N-OH$ \mathbb{R}^3 (CH2) 3CH3 CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl

 $CH_2O(C_6H_5)$

CH2SCH2CH(CH3)2 CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=Br$, $R^2=C(NH_2)=N-OH$ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^{1}=I$, $R^{2}=C(NH_{2})=N-OH$ \mathbb{R}^3 (CH₂) 3CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5

3CF3-C6H4 2C1-C6H4 $R^1=OCH_3$, $R^2 = C(NH_2) = N - OH$ R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCF₃, $R^2 = C(NH_2) = N - OH$ RЗ (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂ C₆H₅ 3CF3-C6H4 2C1-C6H4

 $R^1 = OCF_2H$, $R^2 = C(NH_2) = N - OH$

 R^2 =C (NH₂)=N-OH R^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH₂-cyclopentyl CH₂O (C₆H₅) CH₂SCH₂CH (CH₃)₂ CH₂NHCH₂CH (CH₃)₂ OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂ C₆H₅

3CF₃-C₆H₄ 2C1-C₆H₄

 $R^{1}=NO_{2}$, $R^{2}=C$ (NH₂)=N-OH R^{3} (CH₂) $_{3}$ CH₃ CH₂CH (CH₃) $_{2}$ CH₂CH₂CH (CH₃) $_{2}$ CH₂-cyclopentyl CH₂O (C₆H₅) CH₂SCH₂CH (CH₃) $_{2}$ CH₂NHCH₂CH (CH₃) $_{2}$ OCH₂CH (CH₃) $_{2}$

 $C_{6}H_{5}$ $3CF_{3}-C_{6}H_{4}$ $2Cl-C_{6}H_{4}$

NHCH2CH (CH3) 2

 $R^1=C1$, $R^2=C=N-OCH_3$ C1

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
CGH₅

2C1-C₆H₄

3CF3-C6H4

R¹=Br, R²=Ç=N-OCH₃ C1

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄

2C1-C6H4

 $R^1=I$, $R^2=C=N-OCH_3$

C1

R³

(CH₂) ₃CH₃

CH₂CH (CH₃) ₂

CH₂CH₂CH (CH₃) ₂

CH₂-cyclopentyl

CH₂O (C₆H₅)

CH₂SCH₂CH (CH₃) ₂

CH₂NHCH₂CH (CH₃) ₂

NHCH₂CH (CH₃) ₂

NHCH₂CH (CH₃) ₂

C6H₅

3CF₃-C₆H₄

2C1-C₆H₄

R¹=OCH₃, R²=Ç=N-OCH₃ C1

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

 $R^1=OCF_3$, $R^1=NO_2$, R^2 = φ =N- OCH_3 R^2 =C=N- OCH_3 \mathbb{R}^3 \mathbb{R}^3 (CH₂)₃CH₃(CH₂)₃CH₃ CH2CH (CH3) 2 CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2CH2CH (CH3) 2 CH2-cyclopentyl CH2-cyclopentyl $CH_2O(C_6H_5)$ CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 NHCH2CH (CH3) 2 C_6H_5 C₆H₅ 3CF3-C6H4 3CF3-C6H4 2C1-C6H4 2C1-C6H4 $R^1=C1$, $R^2=C$ (CN)=N-OH $R^1 = OCF_2H$, $R^2 = C = N - OCH_3$ \mathbb{R}^3 (CH₂)₃CH₃ \mathbb{R}^3 CH₂CH (CH₃)₂ (CH₂)₃CH₃ CH2CH2CH(CH3)2 CH2CH (CH3) 2 CH2-cyclopentyl CH2CH2CH(CH3)2 CH₂O (C₆H₅) CH2-cyclopentyl CH2SCH2CH(CH3)2 $CH_2O(C_6H_5)$ CH2NHCH2CH (CH3) 2 CH2SCH2CH (CH3) 2 OCH₂CH (CH₃)₂ CH2NHCH2CH (CH3) 2 NHCH2CH (CH3) 2 OCH2CH (CH3) 2 C₆H₅ NHCH2CH (CH3) 2 3CF3-C6H4 C₆H₅ 2C1-C6H4 3CF3-C6H4 2C1-C6H4 $R^1=Br$, $R^2=C(CN)=N-OH$ \mathbb{R}^3

 $(CH_2)_3CH_3$

CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^{1}=I$, $R^{2}=C(CN)=N-OH$ (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 R^1 =OCH₃, R^2 =C (CN)=N-OH \mathbb{R}^3 (CH₂)₃CH₃ СH₂CH (СH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl сн₂0 (с₆н₅) CH2SCH2CH(CH3)2

 $R^1=Br$, $R^2=CH_2CN$ CH2NHCH2CH (CH3)2 3CF3-C6H4 R3 OCH2CH (CH3)2 2C1-C6H4 NHCH2CH (CH3) 2 (CH₂)₃CH₃ $R^{1}=NO_{2}$, $R^{2}=C(CN)=N-OH$ CH2CH (CH3) 2 C₆H₅ \mathbb{R}^3 3CF3-C6H4 CH2CH2CH(CH3)2 $(CH_2)_3CH_3$ CH2-cyclopentyl 2C1-C6H4 CH2CH (CH3)2 СH₂O (С₆H₅) $R^1 = OCF_3$, $R^2 = C(CN) = N - OH$ CH2CH2CH(CH3)2 CH2SCH2CH (CH3) 2 \mathbb{R}^3 CH2-cyclopentyl CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ (CH₂)₃CH₃ $CH_2O(C_6H_5)$ CH2CH (CH3) 2 CH2SCH2CH (CH3) 2 NHCH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2NHCH2CH (CH3) 2 C₆H₅ CH2-cyclopentyl OCH₂CH (CH₃)₂ 3CF3-C6H4 NHCH₂CH (CH₃)₂ $CH_2O(C_6H_5)$ 2C1-C6H4 CH2SCH2CH (CH3) 2 C₆H₅ $R^1=I$, $R^2=CH_2CN$ CH2NHCH2CH (CH3) 2 3CF3-C6H4 R3 2C1-C6H4 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 (CH₂)₃CH₃ $R^1=C1$, $R^2=CH_2CN$ CH2CH (CH3)2 C₆H₅ R3 3CF3-C6H4 CH2CH2CH(CH3)2 (CH₂)₃CH₃ 2C1-C6H4 CH₂-cyclopentyl CH2CH (CH3)2 CH2O (C6H5) R^1 =OCF₂H, CH2CH2CH(CH3)2 CH2SCH2CH (CH3) 2 $R^2=C(CN)=N-OH$ CH2-cyclopentyl CH2NHCH2CH (CH3) 2 \mathbb{R}^3 CH₂O (C₆H₅) OCH₂CH (CH₃)₂ CH₂SCH₂CH (CH₃) 2 (CH₂)₃CH₃ NHCH₂CH (CH₃)₂ CH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 C6H5 OCH₂CH (CH₃)₂ CH2CH2CH(CH3)2 3CF3-C6H4 CH2-cyclopentyl NHCH2CH (CH3) 2 2C1-C6H4 CH2O (C6H5) C₆H₅ CH2SCH2CH(CH3)2 3CF3-C6H4 R^1 =OCH₃, R^2 =CH₂CN R3 CH2NHCH2CH (CH3) 2 2C1-C6H4 OCH2CH (CH3) 2 (CH₂)₃CH₃ CH₂CH (CH₃)₂ NHCH2CH (CH3) 2 CH2CH2CH (CH3) 2 C₆H₅

CH2-cyclopentyl	NHCH ₂ CH (CH ₃) ₂	$R^{1}=Br$, $R^{2}=CH_{2}C(0)NH_{2}$
CH ₂ O(C ₆ H ₅)	С ₆ н ₅	R ³
CH2SCH2CH (CH3) 2	3CF ₃ -C ₆ H ₄	(CH ₂) ₃ CH ₃
CH2NHCH2CH (CH3)2	2C1-C ₆ H ₄	СH ₂ CH (СH ₃) ₂
OCH ₂ CH (CH ₃) ₂		CH2CH2CH (CH3) 2
NHCH ₂ CH (CH ₃) ₂	$R^1=NO_2$, $R^2=CH_2CN$	CH ₂ -cyclopentyl
С ₆ н ₅	R ³	CH ₂ O(C ₆ H ₅)
3CF ₃ -C ₆ H ₄	(CH ₂) ₃ CH ₃	CH2SCH2CH (CH3) 2
2C1-C6H4	СH ₂ CH (СH ₃) ₂	CH2NHCH2CH(CH3)2
	СH ₂ CH ₂ CH (СH ₃) ₂	осн ₂ сн (сн ₃) ₂
$R^1 = OCF_3$, $R^2 = CH_2CN$	CH ₂ -cyclopentyl	NHCH ₂ CH (CH ₃) ₂
<u>R</u> ³	СH ₂ O (С ₆ H ₅)	C ₆ H ₅
(CH ₂) ₃ CH ₃	CH2SCH2CH(CH3)2	3CF ₃ -C ₆ H ₄
CH ₂ CH (CH ₃) ₂	CH2NHCH2CH(CH3)2	2C1-C6H4
CH2CH2CH(CH3)2	осн ₂ сн (сн ₃) ₂	
CH2-cyclopentyl	NHCH ₂ CH (CH ₃) ₂	$R^{1}=I$, $R^{2}=CH_{2}C(0)NH_{2}$
CH ₂ O(C ₆ H ₅)	С ₆ н ₅	R ³
CH2SCH2CH(CH3)2	3CF3-C6H4	(CH ₂) ₃ CH ₃
CH ₂ NHCH ₂ CH (CH ₃) ₂	2C1-C6H4	СH ₂ CH (СH ₃) ₂
OCH ₂ CH (CH ₃) ₂		СH ₂ CH ₂ CH (СH ₃) ₂
NHCH ₂ CH (CH ₃) ₂	R^1 =C1, R^2 =CH ₂ C(O)NH ₂	CH ₂ -cyclopentyl
C ₆ H ₅	R ³	CH ₂ O(C ₆ H ₅)
3CF ₃ -C ₆ H ₄	(CH ₂) ₃ CH ₃	CH2SCH2CH(CH3)2
2C1-C6H4	СH ₂ CH (СH ₃) ₂	CH ₂ NHCH ₂ CH (CH ₃) ₂
	CH ₂ CH ₂ CH (CH ₃) ₂	осн ₂ сн (сн ₃) ₂
R^1 =OCF ₂ H, R^2 =CH ₂ CN	CH ₂ -cyclopentyl	NHCH ₂ CH (CH ₃) ₂
R ³	СH ₂ O (С ₆ H ₅)	С ₆ н ₅
(CH ₂) ₃ CH ₃	CH ₂ SCH ₂ CH (CH ₃) 2	3CF ₃ -C ₆ H ₄
CH ₂ CH (CH ₃) ₂	CH2NHCH2CH (CH3)2	2C1-C ₆ H ₄
CH2CH2CH(CH3)2	OCH ₂ CH (CH ₃) ₂	
CH ₂ -cyclopentyl	NHCH ₂ CH (CH ₃) ₂	$R^1 = OCH_3$, $R^2 = CH_2C(0)NH_2$
CH ₂ O(C ₆ H ₅)	С ₆ н ₅	R ³
CH ₂ SCH ₂ CH (CH ₃) 2	3CF ₃ -C ₆ H ₄	(CH ₂) ₃ CH ₃
CH ₂ NHCH ₂ CH (CH ₃) ₂	2C1-C ₆ H ₄	Сн ₂ Сн (Сн ₃) ₂
OCH ₂ CH (CH ₃) ₂		СH ₂ CH ₂ CH (СН ₃) ₂

 $\begin{array}{l} \text{CH}_2\text{-cyclopentyl} \\ \text{CH}_2\text{O}\left(\text{C}_6\text{H}_5\right) \\ \text{CH}_2\text{SCH}_2\text{CH}\left(\text{CH}_3\right) 2 \\ \text{CH}_2\text{NHCH}_2\text{CH}\left(\text{CH}_3\right)_2 \\ \text{OCH}_2\text{CH}\left(\text{CH}_3\right)_2 \\ \text{NHCH}_2\text{CH}\left(\text{CH}_3\right)_2 \\ \text{C}_6\text{H}_5 \\ \text{3CF}_3\text{-C}_6\text{H}_4 \\ \text{2Cl}\text{-C}_6\text{H}_4 \end{array}$

R¹=OCF₃, R²=CH₂C(O)NH₂

B³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

 R^{1} =OCF₂H, R^{2} =CH₂C(O)NH₂

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂

OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = NO_2$, $R^2 = CH_2C(0)NH_2$ R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3)2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

$$R^1=C1$$
,
 $R^2=$
 N
 CF_3

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2Cl-C₆H₄

$$R^{1}=I$$
, $N \longrightarrow CF_{3}$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂

NHCH₂CH (CH₃)₂ C_6H_5 $3CF_3-C_6H_4$ $2C1-C_6H_4$

$$R^{1}=OCH_{3}$$
,
 $N = O$
 $R^{2}= N$
 CF_{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

$$R^{1=OCF_{3}},$$

$$R^{2}=$$

$$N \longrightarrow CF_{3}$$

 \mathbb{R}^3 $(CH_2)_3CH_3$ $CH_2CH(CH_3)_2$ $CH_2CH_2CH(CH_3)_2$ $CH_2-cyclopentyl$ $CH_2O(C_6H_5)$ $CH_2SCH_2CH(CH_3)_2$ $CH_2NHCH_2CH(CH_3)_2$

OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂ C_6H_5 $3CF_3-C_6H_4$ $2C1-C_6H_4$

$$R^{1}=OCF_{2}H$$
,
 $R^{2}=$
 N
 CF_{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{2} = NO_{2},$$

$$R^{2} = NO_{2}$$

$$R^{2} = NO_{2}$$

$$R^{2} = NO_{2}$$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂

CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{1}=C1$$
, CH_{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)

 $\begin{array}{l} {\rm CH_2SCH_2CH\,(CH_3)\,2} \\ {\rm CH_2NHCH_2CH\,(CH_3)\,_2} \\ {\rm OCH_2CH\,(CH_3)\,_2} \\ {\rm NHCH_2CH\,(CH_3)\,_2} \\ {\rm C_6H_5} \\ {\rm 3CF_3-C_6H_4} \\ {\rm 2C1-C_6H_4} \end{array}$

$$R^{1}=I$$
,
 CH_{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{1}=OCH_{3}$$
,
 $O-N$
 $R^{2}=$
 N
 CH_{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl

 ${\rm CH_{2}O\,(C_{6}H_{5})}$ ${\rm CH_{2}SCH_{2}CH\,(CH_{3})\,2}$ ${\rm CH_{2}NHCH_{2}CH\,(CH_{3})\,2}$ ${\rm OCH_{2}CH\,(CH_{3})\,2}$ ${\rm NHCH_{2}CH\,(CH_{3})\,2}$ ${\rm C_{6}H_{5}}$ ${\rm 3CF_{3}-C_{6}H_{4}}$ ${\rm 2C1-C_{6}H_{4}}$

$$R^{1}=OCF_{3}$$
,

 $R^{2}=$
 N
 CH_{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1 = OCF_2H$$
, $O-N$
 $R^2 = N$
 CH_3

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂

CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃) 2
CH₂NHCH₂CH(CH₃) 2
OCH₂CH(CH₃) 2
NHCH₂CH(CH₃) 2
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{1}=NO_{2}$$
,
 $O-N$
 CH_{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1$$
=C1, R^2 =CH₂C1
 R^3
 $(CH_2)_3CH_3$
 $CH_2CH(CH_3)_2$
 $CH_2CH_2CH(CH_3)_2$

CH₂-cyclopentyl CH₂O(C₆H₅) ${\rm CH_2SCH_2CH\,(CH_3)\,2}$ ${\rm CH_2NHCH_2CH\,(CH_3)\,2}$ ${\rm OCH_2CH\,(CH_3)\,2}$ ${\rm NHCH_2CH\,(CH_3)\,2}$ ${\rm C_6H_5}$ ${\rm 3CF_3-C_6H_4}$ ${\rm 2Cl-C_6H_4}$

R¹=Br, R²=CH₂Cl R³ (CH₂)₃CH₃ CH₂CH(CH₃)₂ CH₂CH₂CH(CH₃)₂ CH₂-cyclopentyl CH₂O(C₆H₅) CH₂SCH₂CH(CH₃)₂ CH₂NHCH₂CH(CH₃)₂ OCH₂CH(CH₃)₂ NHCH₂CH(CH₃)₂ C₆H₅ 3CF₃-C₆H₄

 $R^{1}=I$, $R^{2}=CH_{2}C1$ R^{3} $(CH_{2})_{3}CH_{3}$ $CH_{2}CH_{2}CH_{3}$ $CH_{2}CH_{2}CH_{3}$ $CH_{2}-Cyclopentyl$ $CH_{2}-Cyclopentyl$ $CH_{2}O_{6}CH_{5}$ $CH_{2}SCH_{2}CH_{3}$ $CH_{2}SCH_{2}CH_{3}$ $CH_{2}CH_{2}CH_{3}$ $CH_{2}CH_{3}CH_{3}$ $CH_{2}CH_{3}CH_{3}$

2C1-C6H4

C₆H₅

3CF3-C6H4 2C1-C6H4 $R^1 = OCH_3$, $R^2 = CH_2C1$ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH (CH3) 2 CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = OCF_3$, $R^2 = CH_2C1$ _R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2

OCH₂CH (CH₃)₂

NHCH2CH (CH3) 2

C₆H₅

3СF₃-С₆Н₄ 2С1-С₆Н₄

 R^1 =OCF₂H, R^2 =CH₂C1 _R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=NO_2$, $R^2=CH_2C1$ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

 \mathbb{R}^3 $(CH_2)_3CH_3$ $CH_2CH(CH_3)_2$ $CH_2CH_2CH(CH_3)_2$ $CH_2-cyclopentyl$ $CH_2O(C_6H_5)$ $CH_2SCH_2CH(CH_3)_2$ $CH_2NHCH_2CH(CH_3)_2$ $OCH_2CH(CH_3)_2$ $NHCH_2CH(CH_3)_2$ CGH_5 $3CF_3-C_6H_4$ $2C1-C_6H_4$

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C6H₅
3CF₃-C₆H₄

$$R^{1}=I$$
,
 $N \longrightarrow O$
 $R^{2}=$
 $N \longrightarrow O$
 $R^{2}=$
 $N \longrightarrow O$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂

$$R^{1=OCF_{3}},$$

$$R^{2}= //$$

$$N \longrightarrow O$$

$$H$$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂

 ${\rm OCH_2CH\,(CH_3)_{\,2}}$ ${\rm NHCH_2CH\,(CH_3)_{\,2}}$ ${\rm C_6H_5}$ ${\rm 3CF_3-C_6H_4}$ ${\rm 2Cl-C_6H_4}$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{1}=C1$$
, $R^{2}=$

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂

 ${\rm CH_2NHCH_2CH\,(CH_3)_2}$ ${\rm OCH_2CH\,(CH_3)_2}$ ${\rm NHCH_2CH\,(CH_3)_2}$ ${\rm C_6H_5}$ ${\rm 3CF_3-C_6H_4}$ ${\rm 2C1-C_6H_4}$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)

 ${\rm CH_2SCH_2CH\,(CH_3)\,2}$ ${\rm CH_2NHCH_2CH\,(CH_3)\,_2}$ ${\rm OCH_2CH\,(CH_3)\,_2}$ ${\rm NHCH_2CH\,(CH_3)\,_2}$ ${\rm C_6H_5}$ ${\rm 3CF_3-C_6H_4}$ ${\rm 2C1-C_6H_4}$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
CH₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{1=\text{OCF}_{3}},$$

$$R^{2}=$$

$$N - NH$$

$$R^{2} = N$$

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl

 $\begin{array}{l} \text{CH}_2\text{O}\,(\text{C}_6\text{H}_5) \\ \text{CH}_2\text{SCH}_2\text{CH}\,(\text{CH}_3)\,2 \\ \text{CH}_2\text{NHCH}_2\text{CH}\,(\text{CH}_3)\,_2 \\ \text{OCH}_2\text{CH}\,(\text{CH}_3)\,_2 \\ \text{NHCH}_2\text{CH}\,(\text{CH}_3)\,_2 \\ \text{C}_6\text{H}_5 \\ \text{3CF}_3\text{-C}_6\text{H}_4 \\ \text{2C1-C}_6\text{H}_4 \end{array}$

$$R^{1}=OCF_{2}H$$
, $N-NH$

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopenty1
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{1}=NO_{2},$$

$$N-NF$$

$$R^{2}=$$

$$N$$

 R^3 $(CH_2)_3CH_3$ $CH_2CH(CH_3)_2$ $CH_2CH_2CH(CH_3)_2$

CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=C1$, $R^2=CH_2OH$ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =Br, R^2 =CH₂OH \mathbb{R}^3 (CH₂)₃CH₃CH₂CH (CH₃)₂ СH₂CH₂CH (СH₃)₂ CH2-cyclopentyl CH20 (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 осн₂сн (сн₃) 2

NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 $R^1=I$, $R^2=CH_2OH$ _R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂ C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = OCH_3$, $R^2 = CH_2OH$ R³ (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O(C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-С6H4

 R^1 =OCF₂H, R^2 =CH₂OH \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

$$R^{1}=NO_{2}$$
, $R^{2}=CH_{2}OH$
 R^{3}
 $(CH_{2})_{3}CH_{3}$
 $CH_{2}CH(CH_{3})_{2}$
 $CH_{2}CH_{2}CH(CH_{3})_{2}$

CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH(CH3)2 NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 $R^1=C1$, \mathbb{R}^2 = \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5

3CF3-C6H4

2C1-C6H4

CH2NHCH2CH (CH3)2

 $OCH_2CH (CH_3)_2$ $NHCH_2CH (CH_3)_2$ C_6H_5 $3CF_3-C_6H_4$ $2C1-C_6H_4$

$$R^{1}=OCH_{3}$$
, O
 $R^{2}=O$

R²= O R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

84 CH₂CH (CH₃)₂ CH2CH2CH (CH3) 2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = OCF_2H$, $R^2=$ R3 (CH₂) 3CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂ C₆H₅ 3CF3-C6H4

2C1-C6H4

NHCH2CH (CH3) 2

$$C_{6}H_{5}$$
 $3CF_{3}-C_{6}H_{4}$
 $2C1-C_{6}H_{4}$

 R^3 $(CH_2)_3CH_3$ $CH_2CH_2CH_3CH_3$ $CH_2CH_2CH_3CH_3$ $CH_2CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_3CH_3CH_3CH_3$ $CH_3CH_3CH_3CH_3$ $CH_3CH_3CH_3$ $CH_3CH_3CH_3$ $CH_3CH_3CH_3$ $CH_3CH_3CH_3$ $CH_3CH_3CH_3$ $CH_3CH_3CH_3$

 $C_{6}H_{5}$ $3CF_{3}-C_{6}H_{4}$ $2C1-C_{6}H_{4}$

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂

NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R¹=OCF₃,

O
R²=
CO

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
CH²CH (CH₃)₂
C

NHCH₂CH (CH₃)₂ C₆H₅ 3CF₃-C₆H₄ 2C1-C₆H₄

CH₂)₃CH₃

CH₂CH (CH₃)₂

CH₂CH₂CH (CH₃)₂

CH₂-cyclopentyl

CH₂O (C₆H₅)

CH₂SCH₂CH (CH₃)₂

CH₂NHCH₂CH (CH₃)₂

OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂ C_6H_5 3CF₃- C_6H_4 2C1- C_6H_4

(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCH₃CH₅
3CF₃-C₆H₄
2C1-C₆H₄

R¹=Cl, R²=CH₂-O-C-CH₃

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂

R¹=Br, R²=CH₂-O-C-CH₃

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

R¹=I, R²=CH₂-O-C-CH₃

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂

C₆H₅

NHCH2CH (CH3) 2

C₆H₅

3CF3-C6H4 2C1-C6H4 $R^1 = OCF_2H$, $R^2 = CH_2 - C - OCH_3$ R³ (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH₂-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = NO_2$, $R^2 = CH_2 - O - C - CH_3$ R3 (CH₂)₃CH₃ СH₂CH (СH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4

2C1-C6H4

R¹=C1, R²=C-OCH₃

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄

 $2C1-C_6H_4$

2C1-C6H4

R¹=Br, R²=C-OCH₃

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄

87 R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R3 (CH₂) 3CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4

2C1-C6H4

R3 (CH₂)₃CH₃ СH₂CH (СH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCF₂H, R^2 =C R3 (CH₂) 3CH₃ СH₂CH (СH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3)2 C₆H₅ 3CF3-C6H4 2C1-C6H4

$$R^1$$
=C1, R^2 =C-NHCH₃
 R^3
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂

OCH2CH (CH3) 2

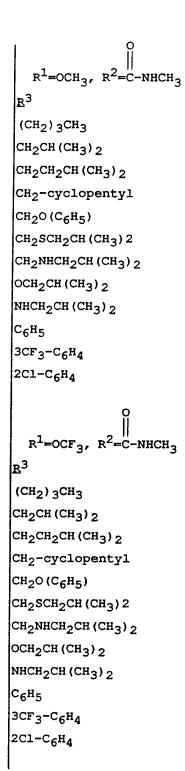
NHCH2CH (CH3) 2

C₆H₅

3CF3-C6H4

2C1-C6H4

2C1-C6H4



3CF3-C6H4

2C1-C6H4

$$R^{1}=OCF_{3}$$
, $R^{2}=CH=C$
 $C=N$
 R^{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄

2C1-C6H4

O
R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C6^H5

(CH₂)₃CH₃

СH₂O (С₆H₅)

CH₂CH (CH₃)₂

Сн₂Сн₂Сн (Сн₃) ₂

CH2-cyclopentyl

 ${\rm CH_2SCH_2CH\,(CH_3)\,2}$ ${\rm CH_2NHCH_2CH\,(CH_3)\,2}$ ${\rm OCH_2CH\,(CH_3)\,2}$ ${\rm NHCH_2CH\,(CH_3)\,2}$ ${\rm C_6H_5}$ ${\rm 3CF_3-C_6H_4}$ ${\rm 2Cl-C_6H_4}$ ${\rm R^1=OCH_3, }$

R¹=OCH₃,

O
II
CN (CH₃)₂

R²=CH=C

COCH₃
II
O

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³ (CH₂) ₃CH₃ CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2Cl-C₆H₄
R¹=OCF₂H,
CN (CH₃)₂
R²=CH=C
COCCH₃
O

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
SCH₃CH₆CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄
2Cl-C₆H₄

$$R^1 = NO_2$$
,

 $COCH_3$
 $COCH_3$
 $COCH_3$
 $COCH_3$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C6^H₅
3CF₃-C₆H₄
2C1-C₆H₄

(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
CH₆H₅

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅

C₆H₅ 3CF₃-C₆H₄ 2C1-C₆H₄

$$R^1=I$$
, $R^2=CH=C$
 $COCH_3$
 $COCH_3$
 $COCH_3$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂

NHCH₂CH (CH₃)₂ C_6H_5 $3CF_3-C_6H_4$ $2C1-C_6H_4$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl

 ${\rm CH_{2}O\,(C_{6}H_{5})}$ ${\rm CH_{2}SCH_{2}CH\,(CH_{3})\,2}$ ${\rm CH_{2}NHCH_{2}CH\,(CH_{3})\,2}$ ${\rm OCH_{2}CH\,(CH_{3})\,2}$ ${\rm NHCH_{2}CH\,(CH_{3})\,2}$ ${\rm C_{6}H_{5}}$ ${\rm 3CF_{3}-C_{6}H_{4}}$ ${\rm 2C1-C_{6}H_{4}}$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1=NO_2$$
, $R^2=CH=C$

$$COCH_3$$

$$COCH_3$$

в³ (Сн₂) _ЗСн₃ $\begin{array}{l} \text{CH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{CH}_2\text{CH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{CH}_2\text{-cyclopentyl} \\ \text{CH}_2\text{O} \, (\text{C}_6\text{H}_5) \\ \text{CH}_2\text{SCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{CH}_2\text{NHCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{OCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{NHCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{C}_6\text{H}_5 \\ \text{R}^3 \\ \text{3CF}_3\text{-C}_6\text{H}_4 \\ \text{2Cl}\text{-C}_6\text{H}_4 \end{array}$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

 $R^1=Br$, R²=CH=CHC-N R^3 (CH₂)₃CH₃CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH20 (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R²=CH=CHC- N \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

 R^{1} =OCH₃, R^{2} =CH=CHC- N R^{2} R^{2} R^{2} R^{2} R^{3} R^{2} R^{3} R^{2} R^{3} R^{2} R^{3} R^{2} R^{3} R^{3} R^{3} R^{3} R^{3} R^{3} R^{3} R^{3}

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2Cl-C₆H₄

R¹=OCF₃,

O

R²=CH=CHC-N

O

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄

2C1-C₆H₄

$$R^{1}=OCF_{2}H,$$

$$R^{2}=CH=CHC-N$$

$$R^{3}$$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1 = NO_2$$
,

 $R^2 = CH = CHC - N$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅

2C1-C6H4

0 $R^1 = I$, $R^2 = CH = CHCOCH_3$ R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH20 (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R1=OCH3, R²=CH=CHCOCH₃ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4

3CF3-C6H4

2C1-C6H4

CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 $R^1=I$, $R^2=CH=CH_2$ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCH₃, R^2 =CH=CH₂ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2

CH2NHCH2CH (CH3) 2

OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 $2C1-C_6H_4$ R^1 =OCF₃, R^2 =CH=CH₂ \mathbb{R}^3 $(CH_2)_3CH_3$ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCF₂H, R^2 =CH=CH₂ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4

2C1-C6H4

(CH₂) 3CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R3 (CH₂)₃CH₃ СH₂CH (СH₃) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4

 $R^1=Br$, $R^2=CH=C$ CNH_2 R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH (CH3) 2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4

$$R^1$$
=OCH₃, R^2 =CH=C CNH_2 CNH_2 O

 R^3 $(CH_2)_3CH_3$ $CH_2CH_2CH_3CH_3$ $CH_2CH_2CH_3CH_3$ $CH_2CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_2CH_3CH_3$ $CH_3CH_3CH_3CH_3$ $CH_3CH_3CH_3CH_3$ $CH_3CH_3CH_3$ $CH_3CH_3CH_3$ CGH_3 CGH_4 CGH_3

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCH₃CH₄CH₅

$$R^1 = NO_2$$
, $R^2 = CH = C$

$$CNH_2$$

$$|||$$
O

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

$$R^1$$
=C1, R^2 =CH=C CN

CIR³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1=I$$
, $R^2=CH=C$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1$$
=OCF₃, R^2 =CH=C

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1 = NO_2$$
, $R^2 = CH = C$

CN

R³

(CH₂)₃CH₃

CH₂CH (CH₃)₂

CH₂CH₂CH (CH₃)₂

CH₂-cyclopentyl

CH₂O (C₆H₅)

CH₂SCH₂CH (CH₃)₂

CH₂NHCH₂CH (CH₃)₂

NHCH₂CH (CH₃)₂

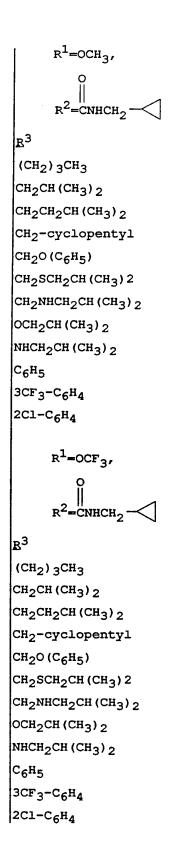
$$^{\text{NHCH}_2\text{CH}}$$
 (CH $_3$) $_2$ C $_6$ H $_5$ 3CF $_3$ -C $_6$ H $_4$ 2C1-C $_6$ H $_4$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅

3CF₃-C₆H₄ 2C1-C₆H₄

 $R^1 = OCF_2H$, R²=C-NH-OCH₂CH=CH₂ \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 $R^1 = NO_2$ R²=C-NH-OCH₂CH=CH₂ R3 $(CH_2)_3CH_3$ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄



$$\begin{array}{c} \mathbf{R^1=OCF_2H,} \\ \\ 0 \\ \\ \\ \\ \mathbf{R^2=CNHCH_2} \end{array}$$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1 = NO_2$$
, $R^2 = CNHCH_2$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

 $R^1=Br$, $R^2=C-NH$

$$\mathbb{R}^{1}=\text{OCF}_{3}, \mathbb{R}^{2}=\text{C-NH}$$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

$$R^1 = OCF_2H$$
,

 $R^2 = C - NH$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

103 $R^1 = NO_2$, $R^2 = C - NH$ R3 (CH₂)₃CH₃ СH₂CH (СH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂ C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=C1$, $R^2=CN(CH_3)_2$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

 $R^1=Br, R^2=CN(CH_3)_2$ \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH₂NHCH₂CH (CH₃)₂ OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^{1}=I$, $R^{2}=CN(CH_{3})_{2}$ \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2

OCH₂CH (CH₃)₂

C6H5

3CF3-C6H4

2C1-C6H4

NHCH₂CH (CH₃)₂

2C1-C6H4

2C1-C6H4

$$R^1=Br$$
, CF_3

$$R^2=C-NH$$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
OCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^{1}$$
=OCH₃,

 CF_{3}
 R^{2} =C-NH

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄

$$\begin{array}{c}
\text{R}^1 = \text{OCF}_2\text{H}, \\
\text{O} \\
\text{R}^2 = \text{C-NH}
\end{array}$$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

$$R^1 = NO_2$$
,

 CF_3
 $R^2 = C - NH$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
CG₆H₅

$$R^1$$
=C1, R^2 =C-NH

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1=Br$$
, $R^2=C-NH$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1=I$$
, $R^2=C-NH$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄

2C1-C6H4

$$R^1$$
=OCH₃, R^2 =C-NH- \bigcirc

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄

2C1-C6H4

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
SCH₃CH₄CH₅
3CF₃-C₆H₄
2C1-C₆H₄

$$R^1 = NO_2$$
, $R^2 = C - NH$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
CH₅
3CF₃-C₆H₄

2C1-C6H4

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅
3CF₃-C₆H₄
2C1-C₆H₄

2C1-C6H4

TABLE 2

	$R^1=C1$, $R^2=CN$	С ₆ н ₅	CH2SCH2CH(CH3)2
1	R ³	3CF3-C6H4	CH2NHCH2CH (CH3)2
	(CH ₂) ₃ CH ₃	2C1-C6H4	осн ₂ сн (сн ₃) ₂
(CH ₂ CH (CH ₃) ₂	'	NHCH2CH (CH3) 2
(СH ₂ CH ₂ CH (СН ₃) ₂	$R^1=Br, R^2=CN$	C ₆ H ₅
C	CH ₂ -cyclopentyl	R ³	3CF3-C6H4
C	CH ₂ O (C ₆ H ₅)	(CH ₂) ₃ CH ₃	2C1-C6H4
C	CH ₂ SCH ₂ CH (CH ₃) 2	СH ₂ CH (CH ₃) ₂	
(CH2NHCH2CH (CH3)2	СH ₂ CH ₂ CH (СH ₃) ₂	$R^1=OCF_3$, $R^2=CN$
C	OCH ₂ CH (CH ₃) ₂	CH2-cyclopentyl	R ³
1	NHCH ₂ CH (CH ₃) ₂	CH ₂ O(C ₆ H ₅)	(CH ₂) ₃ CH ₃

 $\begin{array}{l} \text{CH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{CH}_2\text{CH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{CH}_2\text{-cyclopentyl} \\ \text{CH}_2\text{O} \, (\text{C}_6\text{H}_5) \\ \text{CH}_2\text{SCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{CH}_2\text{NHCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{OCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{NHCH}_2\text{CH} \, (\text{CH}_3) \,_2 \\ \text{C}_6\text{H}_5 \\ \text{3CF}_3\text{-C}_6\text{H}_4 \\ \text{2Cl}\text{-C}_6\text{H}_4 \end{array}$

R¹=OCF₂H, R²=CN

R³
(CH₂)₃CH₃
CH₂CH(CH₃)₂
CH₂CH₂CH(CH₃)₂
CH₂-cyclopentyl
CH₂O(C₆H₅)
CH₂SCH₂CH(CH₃)₂
CH₂NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
NHCH₂CH(CH₃)₂
SCF₃-C₆H₄
2C1-C₆H₄

 $R^1=NO_2$, $R^2=CN$ R^3 $(CH_2)_3CH_3$ $CH_2CH_2CH_2CH_2CH_3$ $CH_2-Cyclopentyl$ $CH_2-Cyclopentyl$ $CH_2O_3CH_3$ $CH_2O_3CH_3$ $CH_2SCH_3CH_3$

CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=C1$, $R^2=CNH_2$ R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH20 (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =Br, R^2 =CNH₂ \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2R3

3CF3-C6H4

2C1-C6H4

 $R^1 = OCF_3$, $R^2 = CNH_2$ R^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = OCF_2H$, $R^2 = CNH_2$ R3 (CH₂) 3CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

 $R^1 = NO_2$, $R^2 = CNH_2$ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ ${\rm CH_2SCH_2CH}$ (${\rm CH_3}$) 2 CH2NHCH2CH (CH3)2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=C1$, $R^2=C=CH$ \mathbb{R}^3 (CH₂)₃CH₃CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1=Br$, $R^2=C=CH$ R³ (CH₂)₃CH₃

CH2CH (CH3) 2

СH₂CH₂CH (СH₃)₂ CH₂-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH(CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = OCF_3$, $R^2 = C = CH$ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = OCF_2H$, $R^2 = C = CH$ R3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3)2

OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 $R^1 = NO_2$, $R^2 = C = CH$ \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH (CH3) 2 CH2-cyclopentyl CH20 (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂ C6H5 3CF3-C6H4 2C1-C6H4 R3 (CH₂)₃CH₃CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4

2C1-C6H4

0 || R¹=Br, R²=COH

R²=Br, R²=CO R³ (CH₂)₃CH₃ CH₂CH(CH₃)₂ CH₂CH₂CH(CH₃)₂ CH₂-cyclopentyl CH₂O(C₆H₅) CH₂SCH₂CH(CH₃)₂ CH₂NHCH₂CH(CH₃)₂ OCH₂CH(CH₃)₂ NHCH₂CH(CH₃)₂ C₆H₅

3CF₃-C₆H₄ 2C1-C₆H₄

 $R^1 = OCF_3$, $R^2 = COH$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
C₆H₅

3CF₃-C₆H₄ 2C1-C₆H₄ $R^1 = OCF_2H$, $R^2 = COH$

(CH₂)₃CH₃ CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂

R3

CH₂-cyclopentyl

CH₂O (C₆H₅)

CH₂SCH₂CH (CH₃) 2

CH₂NHCH₂CH (CH₃)₂

OCH₂CH (CH₃)₂

NHCH₂CH (CH₃)₂

С₆Н₅

3CF₃-C₆H₄

2C1-C6H4

 $R^1 = NO_2$, $R^2 = COH$

R³ (CH₂) ₃CH₃

CH₂CH (CH₃)₂

CH₂CH₂CH (CH₃)₂ CH₂-cyclopentyl

СH₂O (С₆H₅)

СH₂SCH₂CH (СН₃) 2

CH2NHCH2CH (CH3)2

OCH₂CH (CH₃)₂

NHCH₂CH (CH₃)₂

C₆H₅

3CF₃-C₆H₄

2C1-C6H4

R¹=C1, R²=COCH₃

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂
NHCH₂CH (CH₃)₂
CGH₅
3CF₃-C₆H₄

R¹=Br, R²=COCH₃

R3

(CH₂)₃CH₃

2C1-C6H4

Сн₂Сн (Сн₃) ₂

CH₂CH₂CH(CH₃)₂ CH₂-cyclopentyl

CH₂O (C₆H₅)

CH₂O (C₆H₅)

CH2SCH2CH (CH3) 2

CH₂NHCH₂CH (CH₃)₂

OCH₂CH (CH₃)₂

NHCH₂CH (CH₃)₂

C₆H₅

3CF₃-C₆H₄

2C1-C6H4

 $R^1 = OCF_3$, $R^2 = COCH_3$ \mathbb{R}^3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_{2}O(C_{6}H_{5})$ CH2SCH2CH (CH3) 2 ${\rm CH_2NHCH_2CH}$ (${\rm CH_3}$) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ $3CF_3-C_6H_4$ 2C1-C6H4

 $R^1 = OCF_2H$, $R^2 = COCH_3$ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 $CH_2CH_2CH(CH_3)_2$ CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

 $R^1 = NO_2$, $R^2 = COCH_3$ \mathbb{R}^3 $(CH_2)_3CH_3$ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH₂-cyclopentyl CH20 (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH(CH3)2 OCH2CH (CH3)2 NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 (CH₂) 3CH₃

 R^3 CH₂CH (CH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂ C₆H₅ 3CF3-C6H4 2C1-C6H4

(CH₂)₃CH₃

СH₂CH (СH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4

 $R^1 = OCF_3, R^2 = CH$ R3 (CH₂)₃CH₃CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH2O (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4

 $R^1 = OCF_2H$, $R^2 = CH$ R³ (CH₂) 3CH₃ СH₂CH (СH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl

 ${\rm CH_{2}O\,(C_{6}H_{5})}$ ${\rm CH_{2}SCH_{2}CH\,(CH_{3})\,2}$ ${\rm CH_{2}NHCH_{2}CH\,(CH_{3})\,2}$ ${\rm OCH_{2}CH\,(CH_{3})\,2}$ ${\rm NHCH_{2}CH\,(CH_{3})\,2}$ ${\rm C_{6}H_{5}}$ ${\rm 3CF_{3}-C_{6}H_{4}}$ ${\rm 2Cl-C_{6}H_{4}}$

 $R^{1} = NO_{2}, R^{2} = CH$ R^{3} $(CH_{2})_{3}CH_{3}$ $CH_{2}CH(CH_{3})_{2}$ $CH_{2}CH_{2}CH(CH_{3})_{2}$

CH₂-cyclopentyl
CH₂O(C₆H₅)

CH₂SCH₂CH (CH₃) 2 CH₂NHCH₂CH (CH₃) 2

OCH₂CH (CH₃)₂

 $\mathrm{NHCH_2CH}\left(\mathrm{CH_3}\right)_2$ $\mathrm{C_6H_5}$

3CF₃-C₆H₄ 2C1-C₆H₄

> s || R¹=Cl, R²=COCH₃

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂

 $OCH_2CH (CH_3)_2$ $NHCH_2CH (CH_3)_2$ C_6H_5 $3CF_3-C_6H_4$ $2C1-C_6H_4$

s || R¹=Br, R²=COCH₃

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂

nнсн₂сн (сн₃) ₂ С₆н₅ 3сг₃–с₆н₄

2C1-C₆H₄

 $R^1 = OCF_3$, $R^2 = COCH_3$

R³
(CH₂)₃CH₃
CH₂CH (CH₃)₂
CH₂CH₂CH (CH₃)₂
CH₂-cyclopentyl
CH₂O (C₆H₅)
CH₂SCH₂CH (CH₃)₂
CH₂NHCH₂CH (CH₃)₂
OCH₂CH (CH₃)₂

OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂

C6H5

3CF₃-C₆H₄ 2C1-C₆H₄

 $R^1 = OCF_2H$, $R^2 = COCH_3$

R³ (CH₂)₃CH₃ CH₂CH(CH₃)₂

СH₂CH₂CH (СH₃) ₂

CH₂-cyclopentyl

CH₂O (C₆H₅)

CH₂SCH₂CH (CH₃) 2

CH₂NHCH₂CH (CH₃)₂

OCH₂CH (CH₃)₂ NHCH₂CH (CH₃)₂

С₆н₅ ЗСГ₃-С₆н₄

2C1-C6H4

 $R^1 = NO_2$, $R^2 = COCH_3$

_R3 (СН₂) _ЗСН₃

СН₂СН (СН₃)₂ СН₂СН₂СН (СН₃)₂

CH₂-cyclopentyl

сн₂0 (С₆н₅)

CH₂SCH₂CH (CH₃) 2

CH₂NHCH₂CH (CH₃)₂

OCH₂CH (CH₃)₂

NHCH₂CH (CH₃)₂

C₆H₅

3CF₃-C₆H₄

2C1-C6H4

 $R^1=C1$, $R^2=CH_2OH$ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3)2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2 NHCH2CH (CH3) 2 C₆H₅ $3CF_3-C_6H_4$ 2C1-C6H4 $R^1=Br$, $R^2=CH_2OH$ \mathbb{R}^3 (CH₂) 3CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_2O(C_6H_5)$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 R^1 =OCF₃, R^2 =CH₂OH ${\bf R}^{\bf 3}$ (CH₂)₃CH₃ CH2CH (CH3) 2

CH2CH2CH(CH3)2

CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =OCF₂H, R^2 =CH₂OH R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 $R^1 = NO_2$, $R^2 = CH_2OH$ R3 (CH₂)₃CH₃ CH₂CH (CH₃)₂ CH2CH2CH(CH3)2 CH2-cyclopentyl CH₂O (C₆H₅) CH2SCH2CH (CH3) 2 CH2NHCH2CH(CH3)2 OCH2CH (CH3) 2

NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4 2C1-C6H4 R^1 =C1, R^2 =CNHCH₃ R3 (CH₂)₃CH₃ СH₂CH (СH₃)₂ CH₂CH₂CH (CH₃)₂ CH2-cyclopentyl CH₂O(C₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C6H5 3CF3-C6H4 2C1-C6H4 R¹=Br, R²=CNHCH₂ RЗ (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl СH₂O (С₆H₅) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3)2 OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2 C₆H₅ 3CF3-C6H4

2C1-C6H4

 $R^1 = OCF_3$, $R^2 = CNHCH_3$ \mathbb{R}^3 (CH₂)₃CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl CH20 (C6H5) CH2SCH2CH(CH3)2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3)2 NHCH2CH (CH3) 2 C_6H_5 3CF3-C6H4

 $R^1 = OCF_2H$, $R^2 = CNHCH_3$

R3

2C1-C6H4

(CH₂) 3CH₃ CH2CH (CH3) 2 CH2CH2CH(CH3)2 CH2-cyclopentyl $CH_{2}O(C_{6}H_{5})$ CH2SCH2CH (CH3) 2 CH2NHCH2CH (CH3) 2 OCH2CH (CH3) 2

3CF3-C6H4 2C1-C6H4

 C_6H_5

NHCH2CH (CH3) 2

 $R^1 = NO_2$, $R^2 = CNHCH_3$ R^3

 $(CH_2)_3CH_3$ CH₂CH (CH₃)₂

CH2CH2CH(CH3)2

CH2-cyclopentyl

CH₂O (C₆H₅)

CH2SCH2CH (CH3) 2

CH2NHCH2CH (CH3) 2

OCH₂CH (CH₃)₂ NHCH2CH (CH3) 2

C₆H₅

 \mathbb{R}^3

3CF3-C6H4

2C1-C6H4

R3 (CH₂) 3CH₃

CH₂CH (CH₃)₂

CH2CH2CH(CH3)2 CH2-cyclopentyl

CH₂O (C₆H₅)

CH2SCH2CH(CH3)2

CH2NHCH2CH (CH3) 2

OCH2CH (CH3) 2

NHCH2CH (CH3) 2

C₆H₅

3CF3-C6H4

2C1-C6H4

(CH₂)₃CH₃

 \mathbb{R}^3

CH₂CH (CH₃)₂

CH₂CH₂CH (CH₃)₂

CH2-cyclopentyl

CH2O (C6H5)

CH2SCH2CH (CH3) 2

CH2NHCH2CH (CH3) 2

OCH₂CH (CH₃)₂

NHCH2CH (CH3) 2

C₆H₅

3CF3-C6H4

2C1-C6H4

R3

(CH₂)₃CH₃

CH2CH (CH3) 2

CH2CH2CH(CH3)2

CH2-cyclopentyl

CH₂O (C₆H₅)

CH2SCH2CH(CH3)2

CH2NHCH2CH (CH3)2

OCH₂CH (CH₃)₂

NHCH2CH (CH3) 2

C₆H₅

3CF3-C6H4

Formulation

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Compositions of this invention comprising the active compounds of Formula I or II will generally be used in formulation with an agriculturally suitable carrier comprising a liquid or solid diluent or an organic solvent. Useful formulations may be in the form that includes dusts, granules, pellets, solutions, suspensions, emulsions, wettable powders, emulsifiable concentrates, dry flowables and the like, consistent with the physical properties of the active ingredient, mode of application and environmental factors such as soil type, moisture and temperature. Sprayable formulations can be extended in suitable media and used at spray volumes from about one to several hundred

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liters per hectare. High strength compositions are primarily used as intermediates for further formulation. The formulations will typically contain effective amounts of active ingredient, diluent and surfactant within the following approximate ranges which add up 100 weight percent.

	We	ight Perce	ent
	<u>Active</u> Ingredient	<u>Diluent</u>	Surfactant
Wettable Powders	25-90	0-74	1-10
Oil Suspensions, Emulsions, Solutions, (including Emulsifiable Concentrates)	5-50	40-95	0-15
Dusts	1-25	70-99	0-5
Granules and Pellets	0.01-99	5-99.99	0-15
High Strength Compositions	90-99	0-10	0-2

et al., Handbook of Insecticide Dust Diluents and
Carriers, 2nd Ed., Dorland Books, Caldwell, New Jersey.
Typical liquid diluents and solvents are described in
Marsden, Solvents Guide, 2nd Ed., Interscience, New
York, 1950. McCutcheon's Detergents and Emulsifiers

Annual, Allured Publ. Corp., Ridgewood, New Jersey, as
well as Sisely and Wood, Encyclopedia of Surface Active
Agents, Chemical Publ. Co., Inc., New York, 1964, list
surfactants and recommended uses. All formulations can
contain minor amounts of additives to reduce foam,
caking, corrosion, microbiological growth, etc.

Solutions are prepared by simply mixing the ingredients. Fine solid compositions are made by blending and, usually, grinding as in a hammer mill or fluid energy mill. Water-dispersible granules can be produced be agglomerating a fine powder composition; see for example, Cross et al., Pesticide Formulations,

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Washington, D.C., 1988, pp 251-259. Suspensions are prepared by wet-milling; see, for example, U.S. 3,060,084. Granules and pellets can be made by spraying the active material upon preformed granular carriers or by agglomeration techniques. See Browning, "Agglomeration", Chemical Engineering, December 4, 1967, pp 147-48, Perry's Chemical Engineer's Handbook, 4th Ed., McGraw-Hill, New York, 1963, pages 8-57 and following, and WO 91/13546. Pellets can be prepared as described in U.S. 4,172,714. Water-dispersible and water-soluble granules can also be prepared as taught in DE 3,246,493.

For further information regarding the art of formulation, see U.S. 3,235,361, Col. 6, line 16

15 through Col. 7, line 19 and Examples 10-41; U.S. 3,309,192, Col. 5, line 43 through Col. 7, line 62 and Examples 8, 12, 15, 39, 41, 52, 53, 58, 132, 138-140, 162-164, 166, 167 and 169-182; U.S. 2,891,855, Col. 3, line 66 through Col. 5, line 17 and Examples 1-4;

20 Klingman, Weed Control as a Science, John Wiley and Sons, Inc., New York, 1961, pp 81-96; and Hance et al., Weed Control Handbook, 8th Ed., Blackwell Scientific

In the following Examples, all percentages are by
25 weight and all formulations are worked up in
conventional ways. Compound numbers refer to compounds
in Index Table A.

EXAMPLE A

High Strength Concentrate

Publications, Oxford, 1989.

30	Compound 1	98.5%
	silica aerogel	0.5%
	synthetic amorphous fine silica	1.0%

EXAMPLE B

Wettable Powder

35 Compound 1 65.0%

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	dedecadebased malesathedana alesad ather	2 00
	dodecylphenol polyethylene glycol ether	
	sodium ligninsulfonate	4.0%
	sodium silicoaluminate	6.0%
	montmorillonite (calcined)	23.0%
5	EXAMPLE C	
	Granule	
	Compound 1	10.0%
	attapulgite granules (low volative	
	matter, 0.71/0.30 mm; U.S.S. No.	
10	25-50 sieves)	90.0%
	EXAMPLE D	
	Extruded Pellet	
	Compound 1	25.0%
	anhydrous sodium sulfate	10.0%
15	crude calcium ligninsulfonate	5.0%
	sodium alkylnaphthalenesulfonate	1.0%
	calcium/magnesium bentonite	59.0%
	Tests results indicate that the compounds	s of the
	present invention are highly active preemerge	ent and/or
20	postemergent herbicides and/or plant growth :	regulants.
	Many of them have utility for broad-spectrum	pre-
	and/or postemergence weed control in areas w	here
	complete control of all vegetation is desired	d such as
	around fuel storage tanks, industrial storage	e areas.
25	parking lots, drive-in theaters, around bill	ooards and
	highway and railroad structures. Some of the	e compounds
	are useful for the control of selected grass	and
	broadleaf weeds with tolerance to important a	agronomic
	crops which include but are not limited to be	-
30	cotton, wheat, corn, soybeans and rice. Thos	- ·
	in the art will appreciate that not all compo	
	equally effective against all weeds. Alterna	
	the subject compounds are useful to modify pl	- ·
	growth.	

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In certain instances, combinations with other herbicides having a similiar spectrum of control but a different mode of action will be particularly advantageous for resistance management.

5 UTILITY

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Test results indicate that compositions of this invention are herbicidally active postemergence and preemergence. The compositions of this invention are particularly useful for the control of barnyardgrass (Echinochloa crus-galli) in crops especially upland and rice (Oryza sativa).

A herbicidal effective amount of the compounds of this invention is determined by a number of factors. These factors include: formulation selected, method of application, amount and type of vegetation present, growing conditions, etc. In general terms, a herbicidally effective amount is a rate from 0.005 to 10 kg/ha with a preferred rate range of 0.01 to 1 kg/ha. One skilled in the art can easily determine effective application rates for desired level of weed control.

The compositions of this invention may include as active compounds the compounds of Formulas I or II alone or in combination with other commercial herbicides, insecticides, or fungicides. The following list exemplifies some of the herbicides suitable for use in mixtures. A mixture of one or more of the following herbicides with a compound of this invention may be particularly useful for weed control. Examples of other herbicides with which compounds of this invention can be formulated are: acetochlor, acifluorfen, acrolein, 2-propenal, alachlor, ametryn, amidosulfuron, ammonium sulfamate, amitrole, anilofos, asulam, atrazine, barban, benefin, bensulfuron methyl, bensulide, bentazon, benzofluor, benzoylprop, bifenox,

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122 bromacil, bromoxynil, bromoxynil heptanoate, bromoxynil octanoate, butachlor, buthidazole, butralin, butylate, cacodylic acid, 2-chloro-N, N-di-2-propenylacetamide, 2-chloroallyl diethyldithiocarbamate, chloramben, chlorbromuron, chloridazon, chlorimuron ethyl, chlormethoxynil, chlornitrofen, chloroxuron, chlorpropham, chlorsulfuron, chlortoluron, cinmethylin, cinosulfuron, clethodim, clomazone, cloproxydim, clopyralid, calcium salt of methylarsonic acid, cyanazine, cycloate, cycluron, cyperquat, cyprazine, cyprazole, cypromid, dalapon, dazomet, dimethyl 2,3,5,6-tetrachloro-1,4-benzenedicarboxylate, desmedipham, desmetryn, dicamba, dichlobenil, dichlorprop, diclofop, diethatyl, difenzoquat, diflufenican, dimepiperate, dinitramine, dinoseb, diphenamid, dipropetryn, diquat, diuron, 2-methyl-4,6dinitrophenol, disodium salt of methylarsonic acid, dymron, endothall, S-ethyl dipropylcarbamothicate, esprocarb, ethalfluralin, ethametsulfuron methyl, ethofumesate, fenac, fenoxaprop, fenuron, salt of fenuron and trichloroacetic acid, flamprop, fluazifop,

fenuron and trichloroacetic acid, flamprop, fluazifop, fluazifop-P, fluchloralin, flumesulam, flumipropyn, fluometuron, fluorochloridone, fluorodifen, fluoroglycofen, flupoxam, fluridone, fluroxypyr, fluzasulfuron, fomesafen, fosamine, glyphosate,

haloxyfop, hexaflurate, hexazinone, imazamethabenz, imazapyr, imazaquin, imazamethabenz methyl, imazethapyr, imazosulfuron, ioxynil, isopropalin, isoproturon, isouron, isoxaben, karbutilate, lactofen,

lenacil, linuron, metobenzuron, metsulfuron methyl, methylarsonic acid, monoammonium salt of methylarsonic acid, (4-chloro-2-methylphenoxy)acetic acid, S,S'-dimethyl-2-(difluoromethyl)-4-(2-methylpropyl)-6-(trifluoromethyl)-3,5-pyridinedicarbothioate, mecoprop,

35 mefenacet, mefluidide, methalpropalin, metha-

and xylachlor.

benzthiazuron, metham, methazole, methoxuron, metolachlor, metribuzin, 1,2-dihydropyridazine-3,6dione, molinate, monolinuron, monuron, monuron salt and trichloroacetic acid, monosodium salt of methylarsonic acid, napropamide, naptalam, neburon, nicosulfuron, nitralin, nitrofen, nitrofluorfen, norea, norflurazon, oryzalin, oxadiazon, oxyfluorfen, paraquat, pebulate, pendimethalin, perfluidone, phenmedipham, picloram, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2nitroacetophenone oxime-O-acetic acid methyl ester, 10 pretilachlor, primisulfuron, procyazine, profluralin, prometon, prometryn, pronamide, propachlor, propanil, propazine, propham, prosulfalin, prynachlor, pyrazolate, pyrazon, pyrazosulfuron ethyl, quinchlorac, quizalofop ethyl, rimsulfuron, secbumeton, sethoxydim, 15 siduron, simazine, 1-(a,a-dimethylbenzyl)-3-(4methylphenyl)urea, sulfometuron methyl, trichloroacetic acid, tebuthiuron, terbacil, terbuchlor, terbuthylazine, terbutol, terbutryn, thifensulfuron methyl, thiobencarb, triallate, trialkoxydim, 20 triasulfuron, tribenuron methyl, triclopyr, tridiphane, trifluralin, trimeturon, (2,4-dichlorophenoxy) acetic acid, 4-(2,4-dichlorophenoxy) butanoic acid, vernolate,

Compositions comprising a combination of a compound of Formula I or II with one or more of the following herbicides may be particularly useful for weed control in rice: bensulfuron methyl, N-[2-(2-methoxyethoxyphenyl sulfonyl]-N'-4,6-dimethoxy-1,3,5-triazin-2-ylurea, N-[[(4,6-dimethoxypyrimidin-2-yl)amino]carbonyl]-1-methyl-4-(2-methyl-2H-tetrazol-5-yl)-1H-pyrazole-5-sulfonamide, mefenacet, metsulfuron methyl, molinate, pyrazosulfuron ethyl, quinclorac, N-[[(4,6-dimethoxy-2-pyrimidinyl)amino]-carbonyl]-3-methyl-5-(2,2,2-trifluoroethyl)-4-isothiazole-

sulfonamide, 3-chloro-N-[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]imidazo-[1,2-a]pyridine-3-sulfonamide, S,S-dimethyl 2-(difluoromethyl)-4-(2-methylpropyl)-6-(trifluoromethyl)-3,5-pyridine-carbothioate, and butachlor.

Selective herbicidal properties of compositions comprising the compounds of Formulas I or II were discovered in greenhouse tests as described below.

INDEX TABLE A

$$R^3$$

Compounds of Formula II wherein:

CMPD	R1	R ²	R ³	mp (°C)
1	Cl	CO ₂ CH ₃	OCH ₂ CH (CH ₃) ₂	oil
2	Cl	со ₂ н	OCH ₂ CH (CH ₃) ₂	82-84
3	Cl	C (0) NH ₂	OCH ₂ CH (CH ₃) ₂	129-30
4	NO_2	C≡N	С ₆ н ₅	117-118
5	NO_2	C (O) NH ₂	С ₆ н ₅	193.5-195.5
6	NO_2	CO ₂ H	С ₆ н ₅	203-206
7	NO_2	CO ₂ CH ₃	C ₆ H ₅	58-60.5
8	Cl	C (O) NH ₂	OCH ₂ C ₆ H ₅	137-140
9	Cl	C (O) NH ₂	OCH ₂ CH ₂ CH (CH ₃) ₂	137-139
10	Cl	со ₂ сн ₃	OCH ₂ C ₆ H ₅	47-51
11	Cl	CO ₂ H	OCH ₂ C ₆ H ₅	135-138
12	Cl	CO ₂ H	OCH ₂ CH ₂ CH (CH ₃) ₂	76-82
13	Cl	CO ₂ CH ₃	OCH ₂ CH ₂ CH (CH ₃) ₂	oil
14	Cl	со ₂ сн ₃	OCH ₂ CH ₂	oil
15	Cl	CO ₂ H	OCH ₂ CH ₂ OCH ₂ CH ₂	123-127

16	Cl	со ₂ сн ₃	$OCH_2C(CH_3)(OCH_3)_2$	113-118
17	Cl	СНО	OCH ₂ CH (CH ₃) ₂	oil
18	Cl	C (O) NH ₂	OCH ₂ CH ₂ OCH ₂ CH ₂	134-136
19	Cl	со ₂ сн ₃	$OCH_2(2,6F-C_6H_3)$	82-86
20	Cl	CO ₂ CH ₃	СH ₂ ОСН ₂ -С-СН ₃	oil
21	Cl	со ₂ сн ₃	OCH ₂ CO ₂ CH ₃	oil
22	Cl	CH ₂ OH	OCH ₂ CH (CH ₃) ₂	oil
23	Cl	со ₂ сн ₃	$\operatorname{OCH_2CH} \stackrel{\operatorname{CH_2}}{\stackrel{\mid}{\subset}} \operatorname{CH_2}$	oil
24	Cl	CH=N-OH	OCH ₂ CH (CH ₃) ₂	79-81
25	Cl	со2н	$OCH_2(2,6-FC_6H_3)$	167-171
26	Cl	со2н	СH ₂ ОСH ₂ -С-СH ₃	89-92
27	Cl	C (0) NH ₂	$OCH_2(2,6-FC_6H_3)$	175-176
28	Cl	C (0) NH ₂	осн ₂ сн $<$ сн $^{\text{CH}_2}$	149-151
			CH ₂	
29	Cl	C (O) NH ₂	CH ₂ OCH ₂ -C-CH ₃	115-117
29 43	Cl	С (O) NH ₂ CO ₂ CH ₂ CH (CH ₃) ₂	OCH ₂ CH CH ₂ CH ₂ CH ₂ OCH ₂ -C-CH ₃ OCH ₂ CH (CH ₃) ₂	115-117
		_		
43	Cl	со ₂ сн ₂ сн (сн ₃) ₂	OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂	105-107
43 44	C1	CO ₂ CH ₂ CH (CH ₃) ₂	OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂	105-107 37-41
43 44 45	C1 C1	$CO_2CH_2CH (CH_3)_2$ $C=N$ $C (NH_2)=N-OH (trans)$	OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84
43 44 45 46	C1 C1	$CO_2CH_2CH (CH_3)_2$ $C=N$ $C (NH_2)=N-OH (trans)$ $C (NH_2)=NOH (cis)$	OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84 110-124
43 44 45 46 47	C1 C1 C1	$CO_2CH_2CH (CH_3)_2$ $C=N$ $C (NH_2)=N-OH (trans)$ $C (NH_2)=NOH (cis)$ $C (O) NHCH_2CF_3$	OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84 110-124 94-97
43 44 45 46 47 48	C1 C1 C1 C1	CO ₂ CH ₂ CH (CH ₃) ₂ C=N C (NH ₂)=N-OH (trans) C (NH ₂)=NOH (cis) C (O) NHCH ₂ CF ₃ C (O) NHOCH ₃	OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84 110-124 94-97 82-85
43 44 45 46 47 48 49	C1 C1 C1 C1 C1 C1	CO ₂ CH ₂ CH (CH ₃) ₂ C \equiv N C (NH ₂) =N-OH (trans) C (NH ₂) =NOH (cis) C (O) NHCH ₂ CF ₃ C (O) NHOCH ₃	OCH ₂ CH (CH ₃) ₂ CH ₂ CH (CH ₃) ₂ CH ₂ CH (CH ₃) ₃ CH=CHCO ₂ CH ₃	105-107 37-41 81-84 110-124 94-97 82-85 160-165
43 44 45 46 47 48 49	C1 C1 C1 C1 C1 NO ₂	CO ₂ CH ₂ CH (CH ₃) ₂ C=N C (NH ₂)=N-OH (trans) C (NH ₂)=NOH (cis) C (O) NHCH ₂ CF ₃ C (O) NHOCH ₃ C=N C (O) NH ₂	OCH ₂ CH (CH ₃) ₂ CH ₂ CH (CH ₃) ₂ CH ₂ CH (CH ₃) ₃ CH=CHCO ₂ CH ₃	105-107 37-41 81-84 110-124 94-97 82-85 160-165 150-177
43 44 45 46 47 48 49 50	C1 C1 C1 C1 C1 C1 NO2 NO2 C1	CO ₂ CH ₂ CH (CH ₃) ₂ C=N C (NH ₂)=N-OH (trans) C (NH ₂)=NOH (cis) C (O) NHCH ₂ CF ₃ C (O) NHOCH ₃ C=N C (O) NH ₂ C (NH ₂)=N-OC (O) OCH ₃	OCH ₂ CH (CH ₃) ₂ CH=CHCO ₂ CH ₃ CH=CHCO ₂ CH ₃ OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84 110-124 94-97 82-85 160-165 150-177 98-101
43 44 45 46 47 48 49 50 51	C1 C1 C1 C1 C1 NO2 NO2 C1 C1	CO ₂ CH ₂ CH (CH ₃) ₂ C=N C (NH ₂)=N-OH (trans) C (NH ₂)=NOH (cis) C (O) NHCH ₂ CF ₃ C (O) NHOCH ₃ C=N C (O) NH ₂ C (NH ₂)=N-OC (O) OCH ₃ C (C1)=N-OCH ₃	OCH ₂ CH (CH ₃) ₂ CH=CHCO ₂ CH ₃ CH=CHCO ₂ CH ₃ OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84 110-124 94-97 82-85 160-165 150-177 98-101
43 44 45 46 47 48 49 50 51 52	C1 C1 C1 C1 C1 NO2 NO2 C1 C1 C1	CO ₂ CH ₂ CH (CH ₃) ₂ C=N C (NH ₂)=N-OH (trans) C (NH ₂)=NOH (cis) C (O) NHCH ₂ CF ₃ C (O) NHOCH ₃ C=N C (O) NH ₂ C (NH ₂)=N-OC (O) OCH ₃ C (C1)=N-OCH ₃ CH=CBr ₂	OCH ₂ CH (CH ₃) ₂ CH=CHCO ₂ CH ₃ CH=CHCO ₂ CH ₃ CH=CHCO ₂ CH ₃ OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂ OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84 110-124 94-97 82-85 160-165 150-177 98-101 oil
43 44 45 46 47 48 49 50 51 52 53	C1 C1 C1 C1 C1 NO2 NO2 C1 C1 C1 C1	CO ₂ CH ₂ CH (CH ₃) ₂ C=N C (NH ₂)=N-OH (trans) C (NH ₂)=NOH (cis) C (O) NHCH ₂ CF ₃ C (O) NHOCH ₃ C=N C (O) NH ₂ C (NH ₂)=N-OC (O) OCH ₃ C (C1)=N-OCH ₃ CH=CBr ₂ C=N	OCH ₂ CH (CH ₃) ₂ CH=CHCO ₂ CH ₃ CH=CHCO ₂ CH ₃ OCH ₂ CH (CH ₃) ₂	105-107 37-41 81-84 110-124 94-97 82-85 160-165 150-177 98-101 oil oil 92-98

58	Cl	C (O) NH ₂	4-0CH ₃ C ₆ H ₄	180-184
59	Cl	C (O) NH ₂	4-C1C6H4	198-202
60	Cl	C (O) NH ₂	4-FC ₆ H ₄	167-170
61	Cl	C (O) NH ₂	4-BrC ₆ H ₄	>250
62	Cl	C (O) NH ₂	$(4-CH_2CH_2CH_2CH_3)C_6H_4$	196-200
63	Cl	C≡N	C≡CCH ₂ CH ₂ CH ₃	oil
64	Br	СНО	CH ₂ CH ₂ CH ₂ CH ₃	oil
65	Cl	C≡N	$CH_2CH_2CH_2CH_2CH_3$	oil
66	Cl	C≡N	СH ₂ CH ₂ CH ₂ CH ₃	oil
67	Cl	C≖N	СH ₂ CH (СH ₃) ₂	oil
68	Cl	C≡N	CH ₂ CH ₂ CH (CH ₃) ₂	oil
69	Cl	C≡N	CH ₂ Si(CH ₃) ₃	oil
70	Cl	C (O) NH ₂	CH2CH2CH2CH3	91-99
71	Cl	C (O) NH ₂	CH2CH2CH2CH3	118-121
72	Cl	C (O) NH ₂	CH ₂ CH ₂ CH (CH ₃) ₂	88-107
73	Cl	C(0)NH ₂	CH ₂ CH (CH ₃) ₂	97-107
74	Cl	C≖N	C≡C-Si(CH ₃) ₃	106-109
75	Cl	$C(NH_2) = N - OH$	CH ₂ CH ₂ CH (CH ₃) ₂	gum
76	Cl	C≡N	2-C ₄ H ₃ O	79-83
7 7	Cl	C (0) NH ₂	2-C ₄ H ₃ O	86-125
78	Cl	C≡N	N s	116-131
79	Cl	C≡N	N	120-135
80	Cl	C (0) NH ₂		164-174
81	Cl	(CO) NH ₂	N s	168-172

82 Cl C≡N CH3 111-112

CH₃
CH₃
CGH₅
N
130-141

84 Cl C≡N 112-115
N
-N

85 C1 C(O)NH₂

CH₃

CH₃

CH₃

86 Br CH=N-OH $CH_2CH_2CH_3$ oil 87 Cl $C(O)NH_2$ C_6H_5 135-150

—N CH a

88 C1 (CO) NH₂ 83-98

89 Cl C=N Cl oil

90 C1 C=N 117-121

91	Cl	C≡N	c1	oil
92	Cl	C(0)NH ₂	C1 C1	>250
93	Cl	C≡N	CH ₃ S N	163-168
94	C1	С (O) NH ₂	CH ₃	151-164
95	Cl	C≔N	-0-N=CH-C ₆ H ₅	oil
96	Cl	C≡N	-O-N=C (CH ₃) ₂	125-128
97	Cl	C (O) NH ₂	Ŋ	161-163
98	Cl	с (о) и н ₂	C1 CF3	163-172
99	Cl	C (0) NH ₂	-O-N=C (CH ₃) ₂	129-130
100	Cl	C≡N	Сн=СноСн ₃	62-70
101	Cl	C≡N	$-$ осн $_2$ с (о) и (сн $_3$) с $_6$ н $_5$	105-109
102	Cl	C(CN)=N-OH	-OCH ₂ CH (CH ₃) ₂	oil
103	Cl	С (O) NH ₂	-0-CF ₃	108-120

105	Cl	C≝N	-0-CF ₃	58-69
106	Cl	C≡N	CH ₃	170-172
107	NO ₂	C≡N	C(O)CH2CH(CH3)2	oil
108	NO ₂	C≡N	-C (O) CH CH ₂	106-117
109	Cl	CH ₂ -N	-осн ₂ сн (сн ₃) ₂	55-64
110	Cl	N CF3	-осн ₂ сн (сн ₃) ₂	oil
111	Cl	NH	-осн ₂ сн (сн ₃) ₂	124-127
112	Cl	C (O) NHNHC (CH ₃) 3	-осн ₂ сн (сн ₃) ₂	50-64
113	Cl	C (0) NHN-C (0) NHCH ₂ CH ₃ C (CH ₃) ₃	-осн ₂ сн (сн ₃) ₂	oil
114	Cl	C=N	C (O) CH (OCH ₃) ₂	135-141
115	Cl	C≖CH	OCH ₂ CH (CH ₃) ₂	oil
116	Cl	CH ₂ Cl	OCH ₂ CH (CH ₃) ₂	oil
117	Cl	CH ₂ CN	OCH ₂ CH (CH ₃) ₂	oil
118	Cl	CH ₂ C (O) NH ₂	OCH ₂ CH (CH ₃) ₂	102-110
119	I	C (O) OH	CH ₂ CH ₂ CH ₂ CH ₃	82-89
121	Br	C≡N	OCH ₂ CH (CH ₃) ₂	oil
122	Br	C (0) NH ₂	OCH ₂ CH (CH ₃) ₂	98-111
123	NO_2	C≡N	OCH ₂ CH (CH ₃) ₂	oil
124	NO2	C (0) NH ₂	OCH ₂ CH (CH ₃) ₂	123-125

125 C1 C=N
$$CH_2$$
 78-81 CH_3 CH_3 CH_2 CH_3 CH_2 CH_3 CH_3

INDEX TABLE B

$$\mathbb{R}^3$$
 \mathbb{R}^2 \mathbb{R}^2

Compounds of Formula I wherein:

CMPD	R1	R ²	R ³	mp (°C)
30	Br	CO ₂ CH ₃	OCH ₂ CH (CH ₃) ₂	oil
31	Br	CO ₂ H	OCH ₂ CH (CH ₃) ₂	105-109
32	Br	C (0) NH ₂	OCH ₂ CH (CH ₃) ₂	135-137
38	NO_2	${\rm CO_2CH_2CH}$ (${\rm CH_3})$ 2	OCH ₂ CH (CH ₃) ₂	38-42
39	NO_2	CO ₂ H	OCH ₂ CH (CH ₃) ₂	oil
40	NO_2	СНО	$OCH_2CH(CH_3)_2$	45-48
41	NO_2	HC=N-OH	OCH ₂ CH (CH ₃) ₂	96-102
42	NO_2	C≔N	OCH ₂ CH (CH ₃) ₂	68-77
120	NO_2	$CH=C(CN)_2$	OCH ₂ CH (CH ₃) ₂	78-85

INDEX TABLE C

Spectral Data

CMPD

1 NMR (CDCl₃): ppm δ 7.88 (d, 1H); 7.0 (s, 1H); 6.8 (d, 1H); 3.89 (s, 3H); 3.74 (d, 2H); 2.0 (m, 1H); 1.035 (d, 6H)

IR (Neat): $1730 \text{ cm}^{-1} \text{ (C=O)}$

```
ppm \delta 7.87 (d, 1H); 6.96 (s, 1H); 6.8 (d, 1H);
13 NMR (CDCl<sub>3</sub>):
                        4.0 (m, 2H); 3.89 (s, 3H); 1.8 (m, 1H); 1.67
                        (m, 2H); 0.97 (d, 6H)
                        1725 \text{ cm}^{-1} \text{ (C=O)}
     IR (Neat):
14 NMR (CDCl<sub>3</sub>):
                        ppm \delta 7.88 (d, 1H); 7.0 (s, 1H); 6.8 (d, 1H);
                        5.3 (m, 1H); 4.07 (m, 4H); 4.06 (m, 2H); 3.89
                        (s, 3H)
     IR (Neat):
                        1720 \text{ cm}^{-1} \text{ (C=O)}
                       ppm \delta 10.5 (s, 1H); 7.88 (d, 1H); 6.93 (s,
17 NMR (CDCl<sub>3</sub>):
                        1H); 6.8 (d of d, 1H); 3.86 (d, 2H); 2.1 (m,
                        1H); 1.05 (d, 6H)
                       1680 \text{ cm}^{-1} \text{ (C=O)}
    IR (Neat):
20 NMR (CDCl<sub>3</sub>):
                       ppm \delta 7.87 (d, 1H); 6.98 (s, 1H); 6.8 (d of d,
                       1H); 5.0 (s, 2H); 4.64 (s, 2H); 3.9 (s, 3H);
                       1.82 (s, 3H)
                       1725 \text{ cm}^{-1} \text{ (C=O)}
    IR (Neat):
21 NMR (CDCl<sub>3</sub>):
                       ppm \delta 7.89 (d, 1H); 6.98 (s, 1H); 6.8 (d of d,
                       1H); 4.68 (s, 2H); 3.9 (s, 3H); 3.88 (s, 3H)
                       1755; 1720 cm^{-1} (C=O)
    IR (Neat):
                       ppm \delta 7.34 (d, 1H); 6.93 (s, 1H); 6.8 (d of d,
22 NMR (CDCl3):
                       1H); 4.77 (d, 2H); 3.71 (d, 2H); 2.15 (m, 1H);
                       1.8 (s, 1H); 1.026 (d, 6H)
                       3400 \text{ cm}^{-1} \text{ (C=O)}
    IR (Neat):
23 NMR (CDCl<sub>3</sub>):
                       ppm \delta 7.87 (d, 1H); 6.98 (s, 1H); 6.8 (m, 1H);
                       5.0 (d, 2H); 4.64 (s, 2H); 3.9 (s, 3H); 1.82
                       (s, 3H)
                       1725 \text{ cm}^{-1} \text{ (C=O)}
    IR (Neat):
30 NMR (CDCl<sub>3</sub>):
                       ppm \delta 7.53 (d, 1H); 7.31 (m, 1H); 6.8 (d of d,
                       1H); 3.92 (s, 3H); 3.7 (d, 2H); 2.0 (m, 1H);
                       1.03 (d, 6H)
                       1740 \text{ cm}^{-1} \text{ (C=O)}
    IR (Neat):
39 NMR (CDCl<sub>3</sub>):
                       ppm \delta 8.0 (d, 1H); 7.5 (b, s, 1H); 7.2 (s,
                       1H); 6.8 (d, 1H); 3.8 (d, 2H); 2.0 (m, 1H);
                       1.02 (d, 6H)
                       3400, 1712 cm^{-1}
    IR (Neat):
```

```
52 NMR (CDCl<sub>3</sub>):
                       ppm \delta 7.37 (d, 1H); 6.95 (s, 1H); 6.8 (d, 1H);
                       4.0 (s, 3H); 3.73 (d, 2H); 2.1 (m, 1H); 1.02
                       (d, 6H
                       1601 (C=N) cm^{-1}
     IR (Neat):
53 NMR (CDCl<sub>3</sub>):
                       ppm \delta 7.6 (d, 1H); 7.5 (s, 1H); 6.93 (s, 1H);
                       6.8 (d, 1H); 3.71 (d, 2H); 2.08 (m, 1H); 1.01
                       (d, 6H)
                       ppm \delta 7.568 (m, 2H); 7.52 (d, 1H); 2.413 (m,
63 NMR (CDCl<sub>3</sub>):
                       2H); 1.64 (m, 2H); 1.047 (t, 3H)
    IR (Neat):
                       2229 (C≡N) cm<sup>-1</sup>
                       ppm \delta 10.4 (s, 1H); 7.84 (d, 1H); 7.468 (s,
64 NMR (CDCl<sub>3</sub>):
                       1H); 7.25 (d, 1H); 2.63 (m, 2H); 1.37 (m, 2H);
                       0.94 (m, 3H)
                       2748; 1692 (C=O) cm<sup>-1</sup>
    IR (Neat):
                       ppm \delta 7.55 (d, 1H); 7.32 (s, 1H); 7.19 (d,
65 NMR (CDCl3):
                       1H); 2.62 (t, 2H); 1.62 (m, 2H); 1.32 (m, 4H);
                       0.89 (t, 3H)
                       2231 (C≡N) cm<sup>-1</sup>
    IR (Neat):
66 NMR (CDCl<sub>3</sub>):
                       ppm \delta 7.56 (d, 1H); 7.32 (s, 1H); 7.198 (d,
                       1H); 2.64 (t, 2H); 1.602 (m, 2H); 1.38 (m,
                       2H); 0.93 (t, 3H)
                       2231 cm<sup>-1</sup> (C≡N)
    IR (Neat):
                       ppm \delta 7.57 (d, 1H); 7.3 (s, 1H); 7.151 (d,
67 NMR (CDCl<sub>3</sub>):
                       1H); 2.51 (d, 2H); 1.9 (m, 1H); 0.91 (d, 6H)
    IR (Neat):
                       2210 (C≡N) cm<sup>-1</sup>
                      ppm \delta 7.55 (d, 1H); 7.32 (s, 1H); 7.198 (d,
68 NMR (CDCl<sub>3</sub>):
                       1H); 2.646 (t, 2H); 1.5-1.6 (m, 3H); 0.93 (d,
                       6H)
                       2231 (C = N) cm<sup>-1</sup>
    IR (Neat):
                      ppm \delta 7.48 (d, 1H); 7.1 (s, 1H); 6.95 (d, 1H);
69 NMR (CDCl<sub>3</sub>):
                       2.14 (s, 2H); 0.006 (s, 9H)
                      2210 \text{ cm}^{-1} \text{ (C=N)}
    IR (Neat):
                      ppm \delta 7.41 (d, 1H); 7.23 (s, 1H); 7.08 (d,
75 NMR (CDCl<sub>3</sub>):
                      1H); 6.5 (bs, 1H); 4.94 (bs, 2H); 2.6 (t, 2H);
                      1.6 (m, 1H); 1.49 (m, 2H); 0.93 (d, 6H)
```

 $1649 (C=N) cm^{-1}$ IR (Nujol): 86 NMR (CDCl3): ppm δ 8.5 (s, 1H); 8.4 (s, 1H); 7.7 (d, 1H); 7.4 (s, 1H); 2.6 (m, 2H); 1.6 (m, 2H); 1.27 (m, 2H); .97 (m, 3H) 89 NMR (CDCl3): ppm δ 7.8 (s, 1H); 7.6 (m, 2H); 7.26 (m, 1H); 7.0 (s, 1H); 6.8 (d, 1H) $2232 \text{ cm}^{-1} \text{ (C=N)}$ IR (Neat): 91 NMR (CDCl₃): ppm δ 7.6 (d, 1H); 7.53 (s, 1H); 7.32 (d, 1H); 7.11 (d, 1H); 7.09 (s, 1H); 6.83 (d, 1H) $2230 \text{ cm}^{-1} \text{ (C=N)}$ IR (Neat): 95 NMR (CDCl3): ppm δ 7.65 (m, 4H); 7.48 (m, 3H); 7.26 (m, 1H); 7.1 (t, 1H) + isomer2229 cm⁻¹ (C=N), 1631 (C=N) cm⁻¹ IR (Neat): ppm δ 7.42 (d, 1H); 6.99 (s, 1H); 6.83 (m, 102 NMR (CDCl₃): 1H); 3.74 (d, 2H); 2.08 (m, 1H); 1.02 (d, 6H) 3313 cm⁻¹ (OH), 2195 cm⁻¹ (C=N) IR (Neat): 107 NMR (CDCl3): ppm δ 8.82 (s, 1H); 8.34 (d, 1H); 8.05 (d, 1H); 2.92 (d, 2H); 2.3 (m, 1H); 1.03 (d, 6H) 2234 (C=N); 1695 (C=O) cm⁻¹ IR (Neat): ppm δ 7.55 (d, 1H); 7.0 (s, 1H); 6.85 (d, 1H); 110 NMR (CDCl3): 3.76 (d, 2H); 2.1 (m, 1H); 1.04 (d, 6H) IR (Neat): 1599, 1556 (C=N) cm⁻¹ 113 NMR (CDCl₃): ppm δ 9.125 (s, 1H); 7.4 (d, 1H); 6.866 (s, 1H); 6.8 (d, 1H); 5.3 (t, 1H); 3.72 (d, 2H); 3.01 (m, 2H); 2.08 (m, 1H); 1.4 (s, 9H); 1.0 (m, 9H) 1700, 1602 (C=O) cm⁻¹ IR (Neat): 115 NMR (CDCl3): ppm δ 7.4 (d, 1H); 6.95 (s, 1H); 6.78 (d, 1H); 3.7 (d, 2H); 3.27 (s, 1H); 2.08 (m, 1H); 1.01 (d, 6H) IR (Neat): ppm δ 7.33 (d, 1H); 6.945 (s, 1H); 6.8 (d, 116 NMR (CDCl₃): 1H); 4.67 (s, 2H); 3.7 (d, 2H); 2.04 (m, 1H); 1.01 (d, 6H)

134

117 NMR (CDCl₃): ppm δ 7.38 (d, 1H); 6.95 (s, 1H); 6.83 (d,

1H); 3.76 (s, 2H); 3.7 (d, 2H); 2.08 (m, 1H);

1.02 (d, 6H)

IR (Neat): 2251 (C=N) cm^{-1}

121 NMR(CDCl₃): ppm δ 7.55 (d, 1H); 7.18 (s, 1H); 6.9 (d, 1H);

3.75 (d, 2H); 2.05 (m, 1H); 1.03 (d, 6H)

IR (Neat): 2229 (C=N) cm^{-1}

123 NMR (CDCl₃): ppm δ 7.79 (d, 2H); 7.27 (m, 1H); 3.87 (d,

2H); 2.1 (m, 1H); 1.06 (d, 6H)

IR (Neat): 2229 (C=N) cm^{-1}

TEST A

Seeds of barley (Hordeum vulgare), barnyardgrass (Echinochloa crus-galli), bedstraw (Galium aparine), blackgrass (Alopecurus myosuroides), bush bean (Phaseolus vulgaris), cheatgrass (Bromus secalinus), 5 chickweed (Stellaria media), cocklebur (Xanthium pensylvanicum), corn (Zea mays), cotton (Gossypium hirsutum), crabgrass (Digitaria spp.), giant foxtail (Setaria faberii), lambsquarters (Chenopodium album), 10 morningglory (Ipomoea hederacea), rape (Brassica napus), rice (Oryza sativa), sicklepod (Cassia obtusifolia), sorghum (Sorghum bicolor), soybean (Glycine max), sugar beet (Beta vulgaris), velvetleaf (Abutilon theophrasti), wheat (Triticum aestivum), wild buckwheat (Polygonum convolvulus), wild oat (Avena 15 fatua) and purple nutsedge (Cyperus rotundus) tubers were planted and treated preemergence with test chemicals dissolved in a non-phytotoxic solvent. the same time, these crop and weed species were also 20 treated with postemergence applications of test chemicals. Plants ranged in height from two to eighteen cm (one to four leaf stage) for postemergence treatments. Treated plants and controls were maintained in a greenhouse for twelve to sixteen days, 25 after which all species were compared to controls and visually evaluated. Plant response ratings, summarized in Table A, are based on a scale of 0 to 10 where 0 is no effect and 10 is complete control. A dash (-) response means no test result.

Table A		COI	MPOU	JND		Table A		CO	MPO	JND	
Rate 2000 g/ha	1	4	5	6	7	Rate 2000 g/ha	1	4	5	6	7
POSTEMERGENCE						PREEMERGENCE					
Barley	0	-	-	-	-	Barley	0	-	-	-	-
Barnyardgrass	1	10	10	8	6	Barnyardgrass	0	10	10	8	8
Bedstraw	2	-	_	_	-	Bedstraw	0	_	_	_	-
Blackgrass	0	_	-	-	-	Blackgrass	0	-	_	-	-
Bush bean	-	0	1	6	2	Cheatgrass	0	-	_	-	-
Cheatgrass	0	-	-	-	-	Chickweed	-	_	_	_	-
Chickweed	4	-	-	-	-	Cocklebur	0	0	10	-	0
Cocklebur	0	0	1	1	1	Corn	0	0	9	2	0
Corn	0	0	0	0	1	Cotton	0	-	_	-	-
Cotton	0	0	1	1	2	Crabgrass	0	0	0	0	4
Crabgrass	1	0	0	5	1	Giant foxtail	0	-	_	_	-
Giant foxtail	0	-	-	-	_	Lambsquarter	-	-	-	_	-
Lambsquarter	-	-	-	_	-	Morningglory	0	0	10	0	0
Morningglory	2	0	0	1	2	Nutsedge	0	0	0	0	0
Nutsedge	0	0	0	0	0	Rape	0	_	_	-	-
Rape	0	-	-	-	-	Rice	0	0	3	1	0
Rice	0	0	0	0	1	Sicklepod	-	0	1	0	0
Sicklepod	_	0	0	1	1	Sorghum	0	0	0	0	0
Sorghum	0	0	0	0	1	Soybean	0	0	0	0	0
Soybean	0	0	0	1	1	Sugar beet	-	_	-	-	-
Sugar beet	0	-	-	-	-	Velvetleaf	0	-	-	-	-
Velvetleaf	0	-	-	-	-	Wheat	0	0	0	0	0
Wheat	0	0	0	0	1	Wild buckwheat	0	-	-	-	_
Wild buckwheat	0	-	-	-	-	Wild oat	0	0	0	0	0
Wild oat	2	0	0	0	1						

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Table A	Rate 400 g/ha	POSTEMERGENCE	Barley	Barnyardgrass	Bedstraw	Blackgrass	Bush bean	Cheatgrass	Chickweed	Cocklebur	Corn	Cotton	Crabgrass	Giant foxtail	Lambsquarter	Morningglory	Nutsedge	Rape	Rice	Sicklepod	Sorghum	Soybean	Sugar beet	Velvetleaf	Wheat	Wild buckwheat	Wild oat

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Table A														S	COMPOUND	Ð													
Rate 400 g/ha	64	65	99	67	68	69	70	71	72	73	74	75	94	77	18	79	80	81	82	83 8	848	5 8	8 9	17 8	80	9	9	<u>1</u>	7
POSTEMERGENCE																													
Barley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	m	0
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Bedstraw	0	0	0	0	0	0	ı	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	4	0
Blackgrass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	4	0	~	m
Bush bean	ı	ı	ı	i	ı	ł	ı	ı	ı	ı	i	i	ı	ı	ŧ	ı	1	1	ı	ı	ı	ı	ı	ı	ı	ı	1	r	
Cheatgrass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Н	0	0	က	0		0
Chickweed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	က	0	0	0
Cocklebur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	-	0
Corn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	_	~	0
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	6	н	7	0
Crabgrass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	œ	0	4	0
Giant foxtail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	~	m	0
Lambsquarter	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	8	7	4	-
Morningglory	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	9	0
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Rape	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ŋ	0	4	0
Rice	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	m		0	0
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Soybean	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ŋ	0	ന	0
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Velvetleaf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	_	m	0
Wheat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	8	0
Wild buckwheat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Н	&	~ ~
Wild oat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	c	4	c	~	-

Table A											8	COMPOUND	ρ									
Rate 400 g/ha	93 94		92	96	97	98	9 100	101	103	104	105	106 1	07	108 1	09 11	0	11	112 1	13	114	115 3	116
POSTEMERGENCE																						
Barley	0	0	0	0	0					-	8	0	0	0	0	0	0	0	0	0	0	0
Barnyardgrass	0	0	-	ო	0	7	ω ω			Φ	8	0	8	က	-	o,	9	0	Ŋ	0	m	4
Bedstraw	0	0	0	0	0					0	•	0	0	0	0	0	0	0	0	0	0	0
Blackgrass	0	0	0	0	0					-	н	0	0	0	0	0	0	0	0	0	0	~
Bush bean	ı	ı	ı	i	ı					i	1	ı	ı	ı	ı		1	ı	ı	ı	1	1
Cheatgrass	0	0	0	0	0					0	Н	0	0	0	0	0	0	0	0	0	0	4
Chickweed	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocklebur	0	0	0	0	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	0	0	0	0	0					0	-	0	α	8	0	0	0	0	ო	0	0	0
Cotton	0	0	0	0	7					0	7	0	0	-	0	0	0	0	0	0	0	0
Crabgrass	0	0	0	0	0					0	~	0	0	7	0	~	0	0	m	0	0	-
Giant fortail	0	0	0	0	0					0	7	0	0	Н	0	0	0	0	0	0	0	0
Lambsquarter	0	0	0	0	0					0	Н	0	0	0	0	0	0	0	0	0	0	0
Morningglory	0	0	0	0	0					0	Н	0	0	0	0	0	0	0	0	0	0	0
Nutsedge	0	0	0	0	0					0	0	0	0	0	ı	1	0	0	0	0	0	0
Rape	0	0	0	0	0					0	0	0	0	ო	0	0	0	0	0	0	0	0
Rice	1.	ı	ı	ı	0					0	0	0	0	0	0	0	0	0	~	0	0	7
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Sorghum	0	0	0	0	0					0	7	0	0	Н	0	0	0	0	0	0	0	7
Soybean	0	0	0	0	0					0	7	0	0	0	4	0	0	0	-	0	0	0
Sugar beet	0	0	7	0	7					0	0	0	0	m	0	0	0	0	0	0	0	0
Velvetleaf	0	0	0	0	0					0	ო	0	0	ო	0	0	0	0	0	0	0	0
Wheat	0	0	0	0	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Wild buckwheat	0	0	0	0	0					0	4	0	0	0	ı	0	0	0	0	0	0	4
Wild oat	0	0	0	0	0					0	0	0	0	0	0	0	0	0	0	0	0	0

Table A	CO	MPO	JND	Table A	CC	MPOT	JND
Rate 400 g/ha	117	118	120	Rate 400 g/ha	117	118	120
POSTEMERGENCE				POSTEMERGENCE			
Barley	0	0	0	Morningglory	0	0	0
Barnyardgrass	2	2	2	Nutsedge	0	0	0
Bedstraw	2	0	0	Rape	0	0	0
Blackgrass	1	0	0	Rice	0	0	2
Bush bean	-	-	-	Sicklepod	-	_	_
Cheatgrass	0	0	0	Sorghum	0	0	2
Chickweed	3	0	0	Soybean	0	0	1
Cocklebur	0	0	0	Sugar beet	0	-	0
Corn	0	0	0	Velvetleaf	0	0	0
Cotton	0	0	0	Wheat	0	0	0
Crabgrass	0	0	1	Wild buckwheat	2	0	0
Giant foxtail	0	0	1	Wild oat	0	0	0
Lambsquarter	6	_	3				

Table A													J	Š.	COMPOUND	Ð											
Rate 400 g/ha PREEMERGENCE	0	m	c	o	10	11	12 1	13	14 1	15 1	ဖ	17 1	18 1	o.	20 2	21 2	22 2	3 2	4 2	5 2	6 2	7 2	8 2	6	30 3	31 3	2
Barley	0	ß	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barnyardgrass	4	10	7	7	0	0	0	0	0	0	0	~	0	0	0	0	ო	ო	9	0	0	2	&	8	0	0	9
Bedstraw	0	0	0	0	თ	i	ı	6	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blackgrass	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cheatgrass	0	თ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chickweed	0	0	ı	1	ı	0	ı	ı	ı	ı	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocklebur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crabgrass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Giant foxtail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lambsquarter	0	ı	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Morningglory	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nutsedge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rape	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sicklepod	ı	ı	ı	ı	ı	i	i	1	ı	1	ı	1	1	i	ı	1	1	ı	1	ı	ı	ı	1	ı		1	
Sorghum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soybean	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sugar beet	0	ო	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Velvetleaf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wild buckwheat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wild oat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A													S	COMPOUNT	£									
Rate 400 g/ha	38	39	40,	41	42 4	4	5 46	3 47	48	49	50	51	52	53	54	55 5	5	7 5	8	9 60	61	62	63	
PREEMERGENCE																								
Barley	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Barnyardgrass	0	0	0	0	н		Н				0	&	ო	0	^	6	80	9					m	
Bedstraw	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Blackgrass	0	0	0	0	ო						0	0	0	0	0	0	0	0					0	
Cheatgrass	0	0	0	0	0						0	0	0	0	0	0	0	ı					ı	
Chickweed	0	0	0	0	0						0	0	0	0	0	0	0						0	
Cocklebur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					0	
Corn	0	0	0	0	0						0	0	Ο.	0	0	0	0	0					0	
Cotton	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Crabgrass	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Giant foxtail	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Lambsquarter	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Morningglory	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Nutsedge	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Rape	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Rice	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Sicklepod	ı	í	ı	ŧ	ı						ı	ı	ı	1	ı	ı	ı	ı					ı	
Sorghum	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Soybean	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Sugar beet	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Velvetleaf	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Wheat	0	0	0	0	0						0	0	0	0	0	0	0	0					0	
Wild buckwheat	0	0	0	0	i						0	0	0	0	0	0	0	0					0	
Wild oat	0	0	0	0	0						0	0	0	0	0	0	0	0	0	0 0	0	0	0	

Table A													8	COMPOUND	2													
Rate 400 g/ha	64	65	99	29	9 89	6	70 71	1 72	73	74	1 75	16	77	78	79	80	81	82	83	84	85	98	87	88	68	90	91 9	92
PREEMERGENCE																												
Barley	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
Barnyardgrass	7	Н	9	ო	9	0								0	Н	က	m	7	0	0	9	7	0	0	Ŋ	0	0	0
Bedstraw	0	0	0	0	0	1								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blackgrass	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	-	0	н	0
Cheatgrass	ı	0	0	0	0	0								0	0	ı	0	0	0	0	0	0	0	0	~	0	~	0
Chickweed	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocklebur	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	1	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crabgrass	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	4	4	0	
Giant foxtail	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
Lambsquarter	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	i	0	0	0
Morningglory	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	ß	0
Nutsedge	0	1	0	0	0									0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rape	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	m	0
Rice	0	0	7	Н	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sicklepod	ı	ı	ı	ı	1	1								ı	1	ı	ı	1	ı	ı	ı	ı	ı	1	. 1	1	ı	. 1
Sorghum	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soybean	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	1	8	-	0	
Sugar beet	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	&	0	~ ~	
Velvetleaf	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	ဖ	0	0	. 0
Wheat	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0	0	0	Н	0	0	
Wild buckwheat	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Н	0	0	0
Wild oat	0	0	0	0	0	0								0	0	0	0	0	0	0	C	C	C	c	7	c	_	-

											ខ្ល	COMPOUND	e									
Rate 400 g/ha 93		0	96 9	97	98	66	100		03	104	105	ဖ	07	08 1	o	0	11	Н	⊣			116
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0	ی	0					ო	ო	0	4	0	0	0	~	0	7	4	7	4	0	8	ω
0	٠	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	٠	0					0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0
0	_	0					0	0	0	~	0	0	0	0	0	0	0	0	0	0	0	0
0	_	~					0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
0	ی	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	ی	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	ی	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	٠	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	ی	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	ں	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	ی	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wild buckwheat 0	J	0					0	0	0	0	0	0	0	ო	0	0	0	0	0	0	0	0
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Table A	C	OMPO	טאט	Table A	COMPO	DUND
Rate 400 g/ha	117	118	120	Rate 200 g/ha	102	119
PREEMERGENCE				POSTEMERGENCE		
Barley	0	0	0	Barley	0	0
Barnyardgrass	4	4	1	Barnyardgrass	7	3
Bedstraw	0	0	0	Bedstraw	0	0
Blackgrass	0	0	0	Blackgrass	0	0
Cheatgrass	0	0	0	Bush bean	-	-
Chickweed	0	-	0	Cheatgrass	0	0
Cocklebur	0	0	0	Chickweed	0	2
Corn	0	0	0	Cocklebur	0	0
Cotton	0	0	0	Corn	0	0
Crabgrass	0	0	0	Cotton	0	0
Giant foxtail	0	0	0	Crabgrass	0	2
Lambsquarter	0	-	0	Giant foxtail	0	3
Morningglory	0	0	0	Lambsquarter	0	4
Nutsedge	0	0	0	Morningglory	0	0
Rape	0	0	0	Nutsedge	0	0
Rice	0	0	1	Rape	0	2
Sicklepod	-	-	-	Rice	0	0
Sorghum	0	0	0	Sicklepod	-	-
Soybean	0	0	0	Sorghum	0	0
Sugar beet	0	0	0	Soybean	0	0
Velvetleaf	0	0	0	Sugar beet	0	2
Wheat	0	0	0	Velvetleaf	0	3
Wild buckwheat	0	0	0	Wheat	0	0
Wild oat	0	0	0	Wild buckwheat	0	0
				Wild oat	0	0

Table A	COMPOUND	Table A	COMPOUND
Rate 200 g/ha	102 119	Rate 200 g/ha	102 119
PREEMERGENCE		PREEMERGENCE	
Barley	0 0	Morningglory	0 0
Barnyardgrass	7 2	Nutsedge	0 0
Bedstraw	0 3	Rape	0 0
Blackgrass	0 0	Rice	0 0
Cheatgrass	0 0	Sicklepod	
Chickweed	0 3	Sorghum	0 0
Cocklebur	0 0	Soybean	0 0
Corn	0 0	Sugar beet	0 0
Cotton	0 0	Velvetleaf	0 0
Crabgrass	0 0	Wheat	0 0
Giant foxtail	0 0	Wild buckwheat	0 0
Lambsquarter	0 0	Wild oat	0 0

TEST B

Seeds of barnyardgrass (Echinochloa crus-galli), cheatgrass (Bromus secalinus), cocklebur (Xanthium pensylvanicum), crabgrass (Digitaria spp.), giant foxtail (Setaria faberii), morningglory (Ipomoea spp.), 5 sorghum (Sorghum bicolor), velvetleaf (Abutilon theophrasti), and wild oat (Avena fatua) were planted into a sandy loam soil and treated preemergence with test chemicals dissolved in a non-phytotoxic solvent. At the same time, these crop and weed species were also 10 treated postemergence with test chemicals. Plants ranged in height from two to eighteen cm and were in the two to three leaf stage for the postemergence treatment. Treated plants and untreated controls were maintained in a greenhouse for approximately eleven 15 days, after which all treated plants were compared to untreated controls and visually evaluated for injury. Plant response ratings, summarized in Table B, are based on a 0 to 10 scale where 0 is no effect and 10 is complete control. A dash (-) response means no test 20 results.

Table B	C	OME	OUI	MD	Table B	C	COME	OUI	1D
Rate 2000 g/ha	2	3	43	45	Rate 2000 g/ha	2	3	43	45
POSTEMERGENCE					PREEMERGENCE				
Barnyardgrass	6	10	3	10	Barnyardgrass	9	10	0	9
Cheatgrass	0	0	0	0	Cheatgrass	0	0	0	0
Cocklebur	0	0	1	0	Cocklebur	0	0	0	0
Crabgrass	2	1	2	0	Crabgrass	0	0	0	0
Giant foxtail	1	1	1	0	Giant foxtail	0	0	0	0
Morningglory	1	o	1	0	Morningglory	0	0	0	0
Sorghum	1	1	1	0	Sorghum	0	0	0	0
Velvetleaf	1	1	1	0	Velvetleaf	0	0	0	0
Wild oats	1	1	1	0	Wild oats	0	0	0	0

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Table B	COMPOUND	Table B COM	POUND
Rate 1000 g/ha	a 2 3	Rate 1000 g/ha	2
POSTEMERGENCE		PREEMERGENCE	
Barnyardgrass	2 10	Barnyardgrass	9
Cheatgrass	0 0	Cheatgrass	0
Cocklebur	0 0	Cocklebur	0
Crabgrass	1 0	Crabgrass	0
Giant foxtail	0 0	Giant foxtail	0
Morningglory	0 0	Morningglory	0
Sorghum	0 1	Sorghum	0
Velvetleaf	0 0	Velvetleaf	0
Wild oats	0 0	Wild oats	0

TEST C

The test chemicals were formulated in a non-phytoxic solvent and applied to water that covered the soil surface (flood application). Seeds of barnyardgrass (Echinochloa crus-galli), and rice (Oryza sativa) were planted in silt loam soil in separate containers. Containers of barnyardgrass and rice were grown for ten days (barnyardgrass at 2 leaf stage) and flooded one day prior to treatment. Water depth was maintained at approximately 2.5 cm for the duration of the test.

All plant species were grown using normal greenhouse practices. Treated plants were compared to untreated controls and visually evaluated eleven to fifteen days after treatment. Plant response ratings, summarized in Table C, were recorded on a 0 to 100 scale where 0 is no effect and 100 is complete control. A dash (-) response means no test result.

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TEST D

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Plastic pots were partially filled with silt loam soil then saturated with water. Japonica rice (Oryza sativa) seedlings, barnyardgrass (Echinochloa crusgalli) and watergrass (Echinochloa walteri) were grown

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to the 1, 2 and 3 leaf stages and planted. After planting, water levels were raised to 3 cm above the soil surface and maintained at this level throughout the test. Chemical treatments were formulated in a non-phytotoxic solvent and applied directly to the paddy water. Treated plants and controls were maintained in a greenhouse for approximately 21 days, after which all species were compared to controls and visually evaluated. Plant response ratings, summarized in Table D, are reported on a 0 to 100 scale where 0 is no effect and 100 is complete control. A dash (-) response means no test result.

Table D	COMPOUND	Table D	COMPOUND
Rate 500 g/ha	3 46	Rate 250 g/ha	3 46
FLOOD		FLOOD	
Barnyardgrass 2	- 100	Barnyardgrass 2	- 100
Barnyardgrass 3	100 100	Barnyardgrass 3	100 100
Japonica 1	0 35	Japonica 1	0 20
Japonica 2	- 0	Japonica 2	- 0
Watergrass 2	- 0	Watergrass 2	- 0
Watergrass 3	85 -	Watergrass 3	90 -

Table D	COM	POUN	D	Table D	CC	OMPO	UND
Rate 125 g/ha	3	46		Rate 32 g/ha	3	28	46
FLOOD				FLOOD			
Barnyardgrass 2	_	100		Barnyardgrass 2	2 -	85	100
Barnyardgrass 3	100	100		Barnyardgrass :	98	85	100
Japonica 1	0	0		Japonica 1	0	0	0
Japonica 2	_	0		Japonica 2	-	0	0
Watergrass 2	-	0		Watergrass 2	-	0	0
Watergrass 3	80	_		Watergrass 3	75	_	-
Rate 64 g/ha	3	28	46	Rate 16 g/ha	3	28	46
FLOOD				FLOOD			
Barnyardgrass 2	-	98	100	Barnyardgrass 2	: -	60	98
Barnyardgrass 3	100	98	100	Barnyardgrass 3	75	70	95
Japonica 1	0	0	10	Japonica 1	0	0	0
Japonica 2	-	0	0	Japonica 2	-	0	0
Watergrass 2	-	0	0	Watergrass 2	-	0	0
Watergrass 3	80	_	_	Watergrass 3	50	-	_
Rate 8 g/ha	3	28	46	Rate 4 g/ha	28	46	
FLOOD				FLOOD			
Barnyardgrass 2	-	35	80	Barnyardgrass 2	25	70	
Barnyardgrass 3	75	40	85	Barnyardgrass 3	30	70	
Japonica 1	0	0	0	Japonica 1	0	0	
Japonica 2	-	0	0	Japonica 2	0	0	
Watergrass 2	-	0	0	Watergrass 2	0	0	
Watergrass 3	45	-	_	Watergrass 3	-	_	

15

TEST E

Plastic pots were partially filled with clay loam soil. Transplanted seedlings of Japonica rice (Oryza sative) and seeds of barnyardgrass (Echinoghloa oryzicola) were planted in flooded pots. Plants were then grown to the 2 leaf, 2.5 leaf and 3 leaf stages for testing. At test, water levels for all plantings were kept to 3 cm above the soil surface. Chemical treatments were formulated in a non-phytotoxic solvent and applied directly to the paddy water. Treated plants and controls were maintained in a greenhouse for approximately 21 to 28 days, after which all species were compared to controls and visually evaluated. Plant response ratings, summarized in Table E are reported on a 0 to 100 scale where 0 is no effect and 100 is complete control.

Table E C	OMPOUND	Table E C	OMPOUND
Rate 1000 g/ha	3	Rate 250 g/ha	3
Barnyardgrass 2	50	Barnyardgrass 2	50
Rice 1	10	Rice 1	25
Rice 2	10	Rice 2	10
Rate 500 g/ha	3	Rate 125 g/ha	3
Barnyardgrass 2	50	Barnyardgrass 2	40
Rice 1	15	Rice 1	0
Rice 2	10	Rice 2	0

(

What is claimed is:

1. A composition for controlling the growth of undesired vegetation comprising an effective amount of a compound of Formula I or II

$$R^3$$
 R^2
 R^2
 R^3
 R^3
 R^2
 R^3
 R^3
 R^3
 R^3

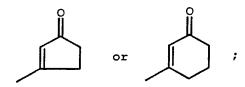
wherein

R¹ is Cl, Br, I, OCH₃, OCHF₂, OCF₃ or NO₂;
R² is CN, CO₂R⁴, CHO, C(X)NR¹⁷R¹⁸, C(S)OR⁶, C≡CH,
CHR¹⁹OR²⁰, CH=NOR⁷, CH=CR²¹R²², C(halogen)=NOR⁷,
C(NH₂)=NOR⁷, C(CN)=NOR⁷, CHR¹⁹(halogen),
CHR¹⁹CN, CHR¹⁹C(=O)NH₂, CHR¹⁹CO₂H, or a fivemembered heterocyclic ring containing one or
more nitrogen, sulfur, or oxygen atoms and
optionally substituted with one or more CH₃,
CF₃, OCH₃, SCH₃, or halogen;

 R^3 is n-propyl; C_4 - C_{10} alkyl; n-propyl or C_4 - C_7 20 alkyl each substituted with one or more halogen, OR^8 , SR^9 or $NR^{10}R^{11}$; C_1-C_2 alkyl substituted with OR^{16} , SR^9 , $NR^{14}R^{15}$, $CO_2(C_1-C_2)$ alkyl) or phenyl optionally substituted with one or more CH3, CF3, OCH3, SCH3 or halogen; C₃-C₆ cycloalkyl; CH₂(C₃-C₆ cycloalkyl); phenyl, 25 pyridyl, thienyl, furyl, pyrazolyl or thiazolyl, each optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; C₂-C₆ alkenyl optionally substituted with one or more 30 halogen or $CO_2(C_1-C_2 \text{ alkyl})$; OR^{12} ; SR^{13} ; $NR^{14}R^{15}$; $C(=X)R^{12}$;

(H,
$$C_1$$
- C_2 alkyl) (H, C_1 - C_2 alkyl)
 OCH_2C
 CH_2
 CH_2
 CH_2
 CH_2

or $O-N=CR^{30}R^{31}$; R^4 is H, C_1-C_2 alkyl,



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 ${\bf R}^6$, ${\bf R}^7$, ${\bf R}^8$, ${\bf R}^9$, ${\bf R}^{10}$ and ${\bf R}^{11}$ are independently H or ${\bf C_1}{-}{\bf C_2}$ alkyl;

 ${\bf R}^{12}$ and ${\bf R}^{13}$ are independently ${\bf C}_1{\bf -C}_{10}$ alkyl 10 optionally substituted with one or more halogen, OR^8 , SR^9 , CO_2R^{23} , $C(O)NR^{24}R^{25}$, CN, $Si(CH_3)_3$, $C(R^{26})(OR^{27})(OR^{28})$ or $NR^{10}R^{11}$; C_1-C_3 alkyl substituted with a five- or six-membered heterocyclic ring containing 1-2 heteroatoms 15 selected from the group 1-2 nitrogens, 1 oxygen and 1 sulfur, each ring optionally substituted with 1-2 substituents selected from F, Cl, Br, CH₃, CF₃, OCH₃ and CN; C₃-C₆ alkenyl; or phenyl or benzyl, each ring optionally substituted 20 with one or more CH₃, CF₃, OCH₃, OR²⁹, SCH₃ or halogen;

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 R^{14} and R^{15} are independently H or $C_1\text{-}C_2$ alkyl, or may be taken together along with the nitrogen to which they are attached to form a pyrrolyl, piperidinyl, morpholinyl, pyrazolyl, or imidazolyl ring, each optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 , or halogen;

- R¹⁶ is H, C₁-C₈ alkyl; benzyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; or phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen;
- R^{17} is H, C_1-C_2 alkyl or phenyl optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 or halogen;
- R¹⁸ is H, C₁-C₂ alkyl, C₃-C₆ cycloalkyl, $CH_2(C_3-C_6)$ 10 cycloalkyl), $O(C_1-C_4)$ alkyl), O-allyl or may be taken together with R^{17} as $-(CH_2)_4-$, $-(CH_2)_5-$ or $-(CH_2CH_2OCH_2CH_2)-$;
 - R^{19} is H or C_1-C_2 alkyl;
 - \mathbb{R}^{20} is H or C(O)CH₃;
- 15 R^{21} and R^{22} are independently H, CN, CO_2R^4 , $C(X)NR^{17}R^{18}$ or halogen;
 - R^{23} , R^{24} , R^{25} and R^{26} are independently H; C_1 - C_3 alkyl; or phenyl optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 , or halogen;
- 20 R^{27} and R^{28} are independently C_1-C_3 alkyl or may be taken together as $-(CH_2)_2-$ or $-(CH_2)_3-$ optionally substituted with 1-2 CH_3 's;
 - X is O or S;
- pyrrolyl each optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃, or halogen; and
 - R^{30} and R^{31} are each independently H; C_1-C_{10} alkyl; or phenyl optionally substituted with one or more CH_3 , CF_3 , OCH_3 , SCH_3 , or halogen;
- and agriculturally suitable salts thereof and at least one of the following: surfactant, solid or liquid diluent.
 - 2. The composition of Claim 1 wherein R^1 is Cl. Br or I;

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- R^2 is CN, CO_2H , CO_2CH_3 , $CO_2CH_2CH_3$, CHO, C(O)NH₂, C(O)NHCH₃, C(O)N(CH₃)₂, CH₂OH or CH=NOR⁷;
- R³ is n-propyl; C₄-C₇ alkyl; C₂ alkyl substituted with phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; CH₂(C₃-C₆ cycloalkyl); phenyl optionally substituted with one or more CH₃, CF₃, OCH₃, SCH₃ or halogen; or OR¹²;

 R^{12} is C_2-C_4 alkyl;

10 3. The compositions of Claim 2 wherein

R¹ is Cl or Br;

 \mathbb{R}^2 is CN, $\mathbb{CO}_2\mathbb{H}$ or $\mathbb{C}(0)\mathbb{NH}_2$;

 R^3 is C_4-C_7 alkyl, $CH_2(C_3-C_6$ cycloalkyl) or OR^{12} .

- 4. The composition of Claim 1 where the compound
- is 2-chloro-4-(2-methylpropoxy)benzamide.
 - 5. A method for controlling the growth of undesired vegetation which comprises applying to the locus to be protected an effective amount of the composition of Claim 1.
- 20 6. A method for controlling the growth of undesired vegetation which comprises applying to the locus to be protected an effective amount of the composition of Claim 2.
- 7. A method for controlling the growth of
 undesired vegetation which comprises applying to the
 locus to be protected an effective amount of the
 composition of Claim 3.
- A method for controlling the growth of undesired vegetation which comprises applying to the
 locus to be protected an effective amount of the composition of Claim 4.
 - 9. A method for controlling the growth of undesired vegetation which comprises applying to the locus to be protected an effective amount of the composition of Claim 4.

Internatic Application No PCT/US 93/08096

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A. CLASS IPC 5	SIFICATION OF SUBJECT MATTER A01N37/40 A01N31/14 A01N A01N37/18 A01N37/34	N35/04	A01N35/10	A01N37/10
According	to International Patent Classification (IPC) or to both nations	al classification	and IPC	
B. FIELD	S SEARCHED			
IPC 5	documentation searched (classification system followed by cla AO1N	assification symb	ools)	
Documenta	ation searched other than minimum documentation to the exten	nt that such doc	uments are included in	the fields searched
Electronic d	data base consulted during the international search (name of d	late base and, w	here practical, search t	terms used)
C. DOCUM	MENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where appropriate, or	f the relevant pa	ssages	Relevant to claim No.
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Furt	her documents are listed in the continuation of box C.	X	atent family members	are listed in annex.
* Special cat	tegories of cited documents:	"T" later	document published at	fter the international filing date
"A" docume	ent defining the general state of the art which is not ered to be of particular relevance	or pr cited	nority date and not in to understand the prir	conflict with the application but sciple or theory underlying the
	document but published on or after the international	"X" docu	ntion ment of particular rele	vance; the claimed invention
L' docume	ent which may throw doubts on priority claim(s) or	cann invo	ot be considered novel ive an inventive step w	or cannot be considered to the the document is taken alone
citation	is cited to establish the publication date of another n or other special reason (as specified)	Cann	ot be considered to inv	vance; the claimed invention volve an inventive step when the
other n		ment	ment is combined with is, such combination be e art.	n one or more other such docu- eing obvious to a person skilled
	ent published prior to the international filing date but nan the priority date claimed		ment member of the sa	ame patent family
Date of the	actual completion of the international search	Date	of mailing of the inter	national search report
	January 1984		20.01.94	
Name and m	nailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk	Autho	orized officer	
	Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Decorte, D	

nt tional application No.

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BUX I	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This int	ernational search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. X	Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
	Claims searched completely: : 2-4, 6-9 Claims searched incompletely: 1, 5; only their subject matter as defined in claims 2-4, and 6-9 has been searched completely. (see attached sheet)
3.	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This Int	ernational Searching Authority found multiple inventions in this international application, as follows:
1.	As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.	As all searchable claims could be searches without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.	As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4.	No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark	on Protest The additional search fees were accompanied by the applicant's protest.
	No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/

1

In accordance with the last paragraph of Chapter III, Point 3.6 of the PCT Search Guidelines, the subject matter of claims 1 and 5 has not been exhaustively searched. Only its subject matter as further defined in the compositions claims 2, 3 and 4 as well as in the corresponding use claims 6-9 has been exhaustively searched.

Additional arguments for limiting the scope of the search could be found in the following considerations:

Each of the claimed compounds comprised in the Markush Formula I and II, is a compound resulting from the variation of the values of each of the three substituents (which embrace a vast array of independently varying radicals which are heterogeneous in structure - in particular R1 - on an 1,2,4 tri-substituted nucleus which represents a special istructural) technical feature of the herbicide derivatives according to the invention.

It appears from e.g. US-A- 3.776.715 (see column 1 , line 19 - line 34) that herbicidal compounds comprising this structural element are known in the prior art.

In this perspective it is not possible (starting from the plethora of individual compounds and without making assumptions having no basis in the application documents) to unambiguously determine a (or a plurality of) GENERALISED set(s) of distinct features which could be considered as special technical features of a solution or of a plurality of alternative solutions to an accordingly formulated problem underlying the invention as a whole.

Consequently the wording of claims 1 and 5 does not comply with Art 5, and Rule 6.3(a), which require that an invention should be clearly defined in terms of the features supported by the invention. These should be identifiable from an appropriate technical statement, supported by the description of the problem and the solution thereto proposed.

The application does not comply with rule 5.1(a) ii and iii in that the description does not provide the common feature(s) of the compounds embraced by the breadth of the definition of claim 1 in a useful manner for understanding the invention and carrying out the search.

Info....ation on patent family members

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PCT/US 93/08096

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